

Abstract of the 'DBA / Ph D' Thesis Entitled

*'MOTIVATIONAL FACTORS OF INDIAN
YOUTH WHILE OPTING FOR A CAREER
WITH SPECIAL REFERENCE TO DELHI
REGION'*

By

*Lt Col Dharmendra Singh
Enrolment No. CC 7524*

Department of Business Administration,
Faculty of Management Studies and Research,
Aligarh Muslim University,
Aligarh-202002 (UP) India.

'Of all the Forces which are of Influence in War,
The Spirit of the Warrior is the most Decisive One'.

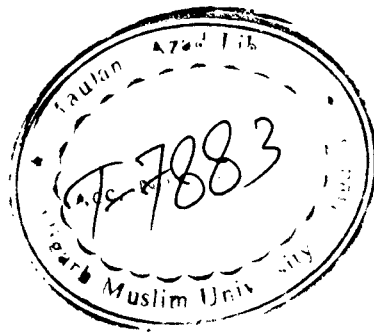


T7883

Polibius



T7883



10 JUN 2013

Abstract

Abstract of Doctorate in Business Administration (DBA) Thesis, 'Motivational Factors of Indian Youth While Opting for a Career with Special Reference to Delhi Region'

1. The present study, conducted by Lt Col Dharmendra Singh as part of Doctorate in Business Administration (DBA) from Aligarh Muslim University in collaboration with All India Management Association (AIMA), explores '*Motivational Factors of Indian Youth While Opting for a Career with Special Reference to Delhi Region*'. It then, assesses implications for recruitment policies of the Armed Forces. The project has been completed under the guidance of Dr Parvaiz Talib, Reader, Faculty of Management Studies and Research, Department of Business Administration, Aligarh Muslim University, Aligarh- 202 002 (India) and Dr. A K Singh, Vice Chancellor, International University of Human Transformation at Raipur (Formerly, Reader, Faculty of Commerce and Business, Department of Commerce, Delhi School of Economics, University of Delhi, Delhi-110 006).
2. The profession of arms, once a coveted career choice at the time of independence, has steadily lost its attractiveness for Indian youth. Possibly, prolonged separation of soldiers from their families, continuous deployment of Army Units on Internal security/Counter Insurgency duties, professional hazards, mismatched pay and allowances as compared to risks and hardships and availability of other lucrative avenues of employment in the private sector in the globalized era are a few factors that deter youth from recruitment into the Armed Forces. This has resulted in a shortfall of 13,000 Officers in the Indian Army, 15 to 20% deficiency in Indian Navy and Indian Air Force.

Lt Col Dharmendra Singh (Retd),
Doctorate Scholar
majdha39@yahoo.co.in
Tele-9818381066/26217209

22/138, Vikram Vihar
Lajpat Nagar-IV
New Delhi-110024

40034/DBA Thesis

29 May 2004

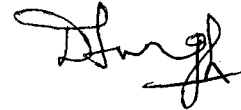
✓ Dean and Chairman,
DBA Committee,
Department of Business Administration,
Aligarh Muslim University, Aligarh-202 002 (UP)

Submission of Doctorate in Business Administration (DBA) Thesis
Entitled 'Motivational Factors of Indian Youth While Opting for a Career
with Special Reference to Delhi Region'

Sir,

1. Please refer enrolment No CC 7524 and DBA registration No. 2721056 in respect of the undersigned and proceedings of DBA thesis pre submission seminar held at AMU on 18 May 2004.
2. Five copies of the theses, in a hard bound and golden lettered cover are submitted for further disposal in accordance with DBA ordinances please.

Yours Sincerely



Enclosures: Five Copies of DBA Thesis.

Copy to: -

1. Controller of Examinations, AMU, Aligarh-202002-
For Information please.
2. AIMA-CME, 14 Institutional Area, - for information please.
Lodi Road, New Delhi-110003.
3. Director, AIT, Sector 55, Gurgaon-122 003- for information please.
4. Dr Parvaiz Talib, AMU, Aligarh-202002- for information please.
5. Dr. AK Singh, University of Delhi-11007- for information please

Lt Col Dharmendra Singh (Retd),
Doctorate Scholar
majdha39@yahoo.co.in
Tele-9818381066/26217209

22/138, Vikram Vihar
Lajpat Nagar-IV
New Delhi-110024

40034/DBA Thesis

29 May 2004

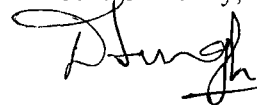
Dean and Chairman,
DBA Committee
Department of Business Administration,
Aligarh Muslim University, Aligarh-202 002 (UP)

Submission of Doctorate in Business Administration (DBA) Thesis
Entitled 'Motivational Factors of Indian Youth While Opting for a Career
with Special Reference to Delhi Region'

Sir,

1. Please refer enrolment No CC 7524 and DBA registration No. 2721056 in respect of the undersigned and proceedings of DBA thesis pre submission seminar held at AMU on 18 May 2004.
2. Five copies of the theses, in a hard bound and golden lettered cover are submitted for further disposal in accordance with DBA ordinances please.

Yours Sincerely,



Enclosures: Five Copies of DBA Thesis.

Copy to: -

1. Controller of Examinations, AMU, Aligarh-202002-
For Information please.
2. AIMA-CME, 14 Institutional Area, - for information please.
Lodi Road, New Delhi-110003.
3. Director, AIT, Sector 55, Gurgaon-122 003- for information please.
- ✓ 4. Dr. Parvaiz Talib, AMU, Aligarh-202002- for information please.
5. Dr. AK Singh, University of Delhi-11007- for information please

Abstract

The thesis has been organized in eight chapters. *Chapter 1 deals with 'World of Careers'. Chapter 2 pertains to 'The Defence Services-A Profile'. Chapter 3 refers to 'Motivation and Youth'. Chapter 4 is concerned with 'Review of Literature'. Chapter 5 highlights 'Present Study and Research methodology'. Chapter 6 deals with 'Results and Discussion', Chapter 7 with 'Implications and Suggestions for Recruitment Policies of the Armed Forces' and chapter 8 with 'Highlights, Suggestions and Future Directions'. The first chapter on careers highlights various jobs available to both science and humanities students and suggestions for students to make a right career choice based on his aptitude and area of proficiency. The second chapter-profiling career in Defence Services refers to various branches of Indian Army, Indian navy and Indian Air Force along with various details of UPSC conducted written tests and Armed Forces' recruitment procedures at Services Selection Boards (SSBs) and medical establishments. The third chapter on 'Motivation and Youth' brings out the conceptual framework for motivation of youth opting for various careers through a model. It is pertinent to mention here that motivational factors inspiring youngsters seeking jobs for the first time are different than professionals switching over jobs in search of greener pastures Therefore, 'Maslow's Hierarchy of Needs' is the most relevant theory in case maiden career seekers. Other theories of motivation are of lesser relevance. The fourth chapter on 'Review of Literature' deals with studies related to career choice and factors influencing career choice and socio- economic status of Armed Forces status. It underlines important highlights of research findings by both Indian and overseas scholars. Pendelton Herring, writing on the eve of the attack on Pearl Harbour, stated the issue with complete tact of a Harvard Professor of Political Science. He wrote that the best talent and the most enterprising young men would not seek to make the profession of Arms their life career. They went into business and other well rewarded professions. Citing the possible reasons for deficiencies, Lt Gen Balaram,*

Abstract

former Adjutant General of Indian Army observed that the possible reasons for deficiencies (demotivators) are inadequate pay, slow promotion, fading prestige in Indian society, and hard and risky service conditions. The fifth chapter on 'Present Study and Research Methodology' covers the 'Need for the Study', 'statement of the Problem', 'Objectives of the Study', 'Hypothesis', 'Research Approach and Design', 'Data Sources', 'Sampling Plan', 'Operational Definitions', 'Development and Description of the Research Tools', 'Pattern of Analysis', 'Pilot Study', 'Reliability of the Tool', 'Procedure for Data Collection', and 'Chi Square Test' to find out the degree the degree of significance of relationship between ranking of Defence Services and their demographic profile. The sixth chapter on 'Results and Discussion' gives out the 'Overall Results' in three parts in the beginning of the text. *Part 1 analyses common demographic data of the students and defence respondents and degree of significance of relationship between ranking of Defence Services and their demographic profile. Part 2 gives out the responses of student respondents with regard to 'Degree of Involvement of Individuals in the Choice for a Career', 'Ranking of Various Professions', 'Degree of Importance of Motivators' and 'Suggested Measures for Improving Attractiveness of Armed Forces as a Career Option'. Part III tabulates responses of Armed Forces respondents with reference to 'Shortfall of Officers', 'Degree of Effectiveness of Measures Instituted by the Armed Forces to Overcome Shortfall of Officers' and 'Measures for Improving Attractiveness of Defence Services'. A two stage models, based on the findings of the research, show 'Motivational Factors of Indian Youth while opting for a Career: Implications for Recruitment Policies of the Armed Forces'. The seventh chapter on 'Implications and Suggestions for Recruitment Policies of the Armed Forces' brings out the recruitment policies during pre and post independence era up to 1970s, present recruitment policies and degenerating motivational levels of Indian youth after independence. The implications are discussed in general terms as*

Abstract

well as specific implications based on the research findings. The suggestions for improving attractiveness of the Defence Services are tabulated showing specific findings along with proposed ameliorative measures. Motivational factors of Indian Youth – based implications for recruitment policies of the Armed Forces are summarized at end of the chapter. The eighth chapter on ‘Highlights, Suggestions, and Future Directions’ covers the essence of the study. Bibliography, Suggested Readings are given for ready reference of readers as appendices.

3. Specifically, this study was carried out with the following objectives in mind: -
 - (a) To identify motivational factors enchanting youngsters while opting for a career.
 - (b) To determine the career preferences of modern day youth and to know the place the Defence Services enjoy in the order of preference vis-à-vis other professions.
 - (c) To find out the degree of involvement of various individuals influencing the choice of the youth for a career.
 - (d) To identify reasons for shortfall of manpower in the officers’ cadre of the Defence Services and also inadequacies of the recruitment policies.
 - (e) To determine the degree of effectiveness of various measures instituted by the Defence Services to overcome the short fall of officers.

Abstract

- (f) To suggest measures for attracting youth towards the Defence Services and evolve effective recruitment policies in modern day context.
 - (g) To identify implications of Motivational Factors of Indian Youth on the Recruitment Policies of Armed Forces.
 - (h) To establish the significance of relationship between ranking of Defence Services by Student Respondents and their demographic profile.
2. The study used questionnaire-based survey amongst students and defence respondents. The population for the present research study comprised 225 students (75 students each of class XII, Undergraduate and PG students). In addition, 150 Armed Forces personnel from three branches namely, Army, Navy and Air Force were included in the sample. From amongst students, 75 class XII students, from both rural and urban areas, were covered in the study. Care was taken to ensure representation of both male and female respondents and also students from both private and government schools were included in the study to gauge their expectations/motivation from a service and also their order of preference for various professions. 75 Graduate and 75 Postgraduate students of both the sexes and also from urban and rural areas were included in the study. 150 respondents were selected from amongst serving and retired defence personnel. These officers were of varying seniority and rank structure, diversified socio-economic background, and educational status and from all parts of India. Two questionnaires, vetted by experts in the area, were administered to the respondents (225 students and 150 defence personnel). The random sampling method was employed for primary data collection. The questionnaire for students had 19 questions. The first question dealt with degree of involvement of various individuals (i.e. mother, father, sister /

Abstract

brother, teacher, friends, relatives, grand-parents and others) in the choice of a career, on a four-point scale (least involved, somewhat involved, quite involved, and highly involved). The weights of 1,2,3 and 4 respectively were assigned to various Degrees of Involvement. The total score for each individual who could influence like each of the – four options mentioned above (i.e. Mother, Father, Brother/Sister, Teacher, Friends, Relatives, Grand parent) was worked out. And scores of all individuals for each respondent were summed up to find out the degree of involvement of these individuals. Ranking was decided by dividing the total score by No. of respondents i.e. 225 to arrive at the cumulative total. The total score of each individual was divided by the No. of respondents to get the average and multiplying the average by 100 to get the percentage. The second question required student respondents to rank nine broad categories/ sub-categories of professions. The broad categories of jobs included Teaching, Career in Creative / Performing Arts, Civil Services, Defence Services, Independent Professional, Private Sector, Public Sector, Self Employed, Computer and IT Professional and any profession other than afore-mentioned professions. While the profession ranked as No. 1 out of 9 was marked as 9, the service ranked as No. 2 was marked as 8 and so on. The score for each respondent and each career was summed up to arrive at the most preferred choice corresponding to highest score. Similarly, second, third and least popular service amongst the respondents were discerned. Dividing the total score by maximum possible score and multiplying the average by 100 to get the percentage, the average score of each profession and percentage were computed.

The third structured question sought to ascertain the degree of importance of various motivators in the choice of a career on a four-point scale (very important, quite important, somewhat important, and least important). Factors marked as 'Least Important', 'Some What Important', 'Quite Important' and 'Most Important' were graded as 1, 2, 3, and 4 respectively.

Abstract

The score of each factor was totaled for all respondents to find out degree of importance of each factor. While the factor scoring highest emerges, then, as the most effective motivator of the youth. The least scored factor having least score emerges as a least important motivator for the respondents. The overall average score of each factor was calculated by dividing the total score of each motivator by the number of respondents.

The fourth open-ended questions required the respondents to suggest measures to improve the attractiveness of the Armed Forces. The various measures were tabulated in terms of percentage and frequency and the highest frequency measure was interpreted as the most desirable and effective measure for attracting youth. The percentage of each desirable measure was calculated by dividing the frequency by No. of respondents and multiplying the quotient by 100.

The rest of 15 questions were related to personal particulars and demographic aspects. These were interpreted in terms of frequency and percentage of responses.

The degree of significance of relationship between ranking of Defence Services by student respondents and their demographic profile was established through Chi Square Tests.

The second questionnaire for defence personnel had 23 questions. The first open-ended question enquired the reasons for shortfall of manpower in the officers' cadre. Responses were interpreted in terms of frequency and percentages as explained earlier.

The second structured question sought opinion of the respondents regarding degree of effectiveness of various measures instituted by the Defence Services to overcome shortfall of manpower on a four point scale (very effective, quite effective, somewhat effective and least effective). The opinion of the

Abstract

respondents was ascertained on a four-point scale ranging from 'Least Effective', 'Somewhat Effective', and 'Quite Effective' to 'Very Effective' measures. These ranks were assigned weights of 1, 2, 3 and 4 respectively. The scores of each measure for all the respondents were summed up and divided by the No. of respondents i.e. 150, to find the overall average degree of effectiveness of each measure and percentage was calculated by multiplying the average by 100. The degree of effectiveness of measures was also shown with the help of a bar graph.

The third open-ended question pertained to measures that respondents would suggest overcoming shortfall of manpower. The measures suggested were interpreted in terms of frequency and percentage. These were presented with the help of a bar graph. The rest of 20 questions pertained to personal particulars and demographic factors.

3. It was conducted in a selected government school, a Central School in New Delhi and institutions of GGS Indraprastha University, University of Delhi and other institutions. Primary data was collected from 75 students of two schools-Saheed Hemu Kalami Navodya Higher Secondary School, New Delhi and Central School, Andrews Ganj, New Delhi, 75 undergraduate and 75 PG students from institutions of IP University and Delhi University, New Delhi. In addition, 150 officers from Army, Navy and Air Force participated in the study. Prior permission of Armed Forces Headquarters at New Delhi was obtained to this effect. The study used questionnaire-based survey and interview method among students defence respondents.
4. *As regards degree of involvement of various individuals in the choice of career, mother emerged as most highly involved followed by father, friends, relatives, teacher, sister/brother and grandparents. Other individuals / factors*

Abstract

included self- motivation, girl friends and celebrities. *Civil Services were adjudged the most coveted profession* followed by private sector, self-employment, independent professional, teaching, career in creative and performing arts and computer/ IT professional, Defence Services, and public sector. . Amongst other careers, which were received attention of the student respondents were consultancy and cinema acting. Defence Services received 8th place in choice of career. Possibly, hardships and hazards of the profession coupled with prolonged periods of separation from families at ordinary pay and allowances do not enthuse bright capable youth to accord higher priority the to Armed Forces for enrolment. Only those mediocre youngsters who fail to get place in other lucrative career options like medical, engineering, civil services may join the Defence Services as a last resort to avoid being labeled as '*Unemployed*'. Amongst the creative and performing arts, journalism was found to be the most coveted. Dancing, singing, music, and painting followed it. IAS ruled the roost amongst the civil services, followed by IPS, Indian Foreign Service (IFS), and Allied services. Possibly, the 'power and prestige' and '*opportunity to earn a lot*' motivate youth to aspire for IAS / IPS. Indian Air Force (IAF) was accorded the highest preference by the respondents amongst three defence services. Indian Navy followed it. Indian Army, due to its rustic and difficult life found very few aspirants. Amongst the professionals, the medicine was accorded the highest preference. It was followed by engineering, finance and advocacy in a court of law. In the corporate life, students preferred a job in a multi national company to Indian company. Amongst the ranking of motivators, Students *accorded maximum importance to 'opportunity to earn a lot'* followed by 'Job Security', 'security of self and family', 'prestige in society', 'power and authority', 'feeling of togetherness amongst fellow workers', 'challenging work environment', 'opportunity to serve the nation', 'job in large metro', 'recognition and rewards', 'glamour of uniform', 'job close to home town', and 'adventurous life style'. . 'Glamour of uniform' and 'adventurous life style' found very few takers. To make the career in Defence Services

Abstract

attractive, most students suggested compulsory military training followed by improving promotional prospects, rationalisation of pay and allowances, organising visits of youth to Defence Establishments for greater familiarization, caring for and rehabilitation of Next-of kin of martyrs and the war- wounded and glorification of the Armed Forces through TV serials like 'PVC' and 'Fauji'. Other measures suggested by student respondents included 'glorification of patriotism through media campaign', 'compulsory NCC training', 'enhancement of monetary and non monetary incentives', 'highlighting the importance of the defence in national and international life'. *There was a significant relationship between ranking of Defence Services by Student Respondents and all their demographic factors.*

5. Defence respondents cited *subjectivity in performance appraisal* followed by poor promotion prospects due to pyramidal hierarchy, unrealistic pay and allowances, early retirement age, risk of being disabled/martyred in battle, frequent separation from families, autocratic style of leadership, frequent unscheduled moves of personnel, poor growth of children of soldiers and scandalous defence deals are the important reasons for shortfall of officers in the Defence. *As regards the degree of effectiveness of various measures instituted by the Armed Forces, improvement of promotional prospects by reducing service requirement for substantive rank of Capt, Major and Lt Col was ranked as the most effective measure.* It was followed by motivating NCC Cadets to join the Services, increasing intake of Short Service Commissioned Officers (SSCOs), introduction of stipend at training academies, raising of Rashtriya Rifles to relieve regular army soldiers from Counter Insurgency (CI) / Internal Security (IS) duties , opening doors to ladies commissioned officers, enhancement of attachment period of administrative services officers with Combat Arms, re-employment of retired officers, encouraging Junior Commissioned Officers (JCOs) for shouldering enhanced responsibilities, effective media campaign, filling up vacancies of officers through personnel below officers ranks (PBOR), mobilizing and

Abstract

deploying Territorial Army for security duties for a longer duration. *Dilution of selection standards and curtailment of Pre-Commission Training period were assessed as the 'least effective' measures. To overcome shortfall of officers, further improvement in promotion prospects was most frequently suggested measure by Defence respondents.* It was followed by reservation of seats in educational institutions irrespective of domicile criteria for children of soldiers, lateral induction in suitable civil services of Military Officers, ensuring objectivity of performance appraisal through introduction of 360⁰ performance appraisal for ensuring better job satisfaction, increasing retirement age up to 58-60 years to ensure full-fledged career in the Armed Forces for youngsters, constituting separate pay Commission for the defence services to take into account the peculiar service conditions of soldiers, ensuring 100% accommodation for families of soldiers for better quality-of-work-life, inclusion of questions on military affairs in all school, college and competitive examinations for generating greater awareness about the defence services among the India masses, utilizing the managerial expertise of retired officers by employing them suitably in civil life, and greater sensitization of civil services towards the problems of soldiers' families. Other measures suggested included efficient media management, popularization of short-service commission and reducing employment of army for police duties.

6. *The paradigm shift in motivators of youth implies the need for regular conduct of motivational surveys of youth to bring the recruitment policies of the Armed in tune with time.* To attract talented youth, Pay and Allowances, Promotion Prospects and warrant of precedence of Defence officers vis-à-vis Civil Services officers need to be rationalized. The hardships and risk factors of soldiering are to be considered. Media campaign has to be made effective by targeting youth from rural/semi urban areas. Emphasis may be put on Short Service Commissioned officers (SSCOs) commissioning for better promotion prospects of regular officers without diluting selection standards or curtailing training periods. 100% family accommodation for personnel,



Abstract

minimal employment of Armed Forces on internal security and counter insurgency tasks are necessary for stable family life. This will improve Quality- of- work life and motivate youngsters to join the Armed Forces.

7. *About the implications, changes brought upon in the recruitment ideology for the Indian Defence soon after independence, with the intention of broadening the base for bringing about equality and national integration have had their obvious derogatory effect on the professional standards of the Armed Forces. The situation got further accentuated as a result of the need for sudden expansion consequent to wars with China and Pakistan, and the changing socio-economic level of the country, which has made civil sector more lucrative. There is an obvious necessity to initiate deliberate steps to improve the terms and conditions of the Defence Services to ensure induction of the 'right type' and their continued retention. Hence the impact of changes in recruitment ideology can aptly be summarized in the following words:*

“There may not be shortage of volunteers for the Defence Services because of the staggering unemployment in our country. But in terms of quality, however, there is no doubt that the Defence Services are lagging behind in drawing the more promising boys from our Schools, Colleges and Universities. ” And “if we fail to ensure that our Armed Forces get the pick of nation’s youth, we may have to pay serious penalties for this lapse.”

This phenomenon is equally applicable to and is being experienced by all newer nations, who are traversing a similar path of industrialization and economic development. Thus, there is an obvious necessity to take effective steps to rectify the situation.

Abstract

If the apathy of Government of India towards amelioration of service conditions of Armed Forces personnel continues, it would continue to affect the quality of leadership, operational effectiveness and manpower state of officers' cadre. Omar Bradley has rightly said, "Inferior inducement brings second-rate men, second-rate men bring second-rate security; in war there is no prize for the runner up".



**‘Study of Motivational Factors of Indian Youth While Opting for a
Career with Special Reference to Delhi Region’**

Thesis

Submitted for the Award of degree of
‘Executive Doctorate in Business Administration’

By

Lt Col Dharmendra Singh

Under the Guidance of

Dr. Parvaiz Talib, MBA, Ph D
Reader
Department of Business Administration
Faculty of Management studies and Research
Aligarh Muslim University,
Aligarh - 202002

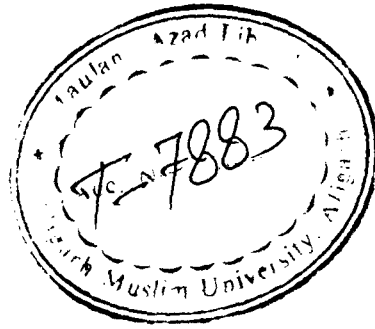
(Internal Adviser)

Dr. A K Singh, M Com, Ph D
Reader
Department of Commerce,
Faculty of Commerce and
Business, Delhi School of
Economics, University of Delhi
Delhi – 110007
(External Adviser)

**Department of Business Administration
Faculty of Management Studies and Research
Aligarh Muslim university
Aligarh- UP (India)
2004**



T7883



10 JUN 2013



Certified that this is Bonafide Work

of

Lt Col Dharmendra Singh

at

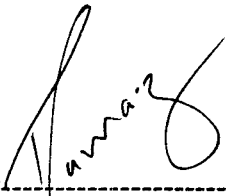
Aligarh Muslim University, Aligarh (UP).


**Submitted for the Award of the Degree of Doctorate in Business
Administration (DBA)**

From

**Aligarh Muslim University, Aligarh in Collaboration with All India
Management Association (AIMA), New Delhi.
2004**

**Enrolment No: - CC 7524
Registration No: - 272001056**

Internal Adviser 
Dr. Parvaiz Talib, MBA, Ph D
Reader
Department of Business Administration
Faculty of Management studies and Research
Aligarh Muslim University,
Aligarh - 202002

External Adviser 
Dr. A K Singh, M Com, Ph D
Reader
Department of Commerce,
Faculty of Commerce and
Business, Delhi School of
Economics, University of Delhi
Delhi - 110007



**‘Motivational Factors of Indian Youth While
Opting for a Career with Special
Reference to
Delhi Region’**

By

**Lt Col Dharmendra Singh
DBA Enrolment No: CC 7524
DBA Registration No: 272001056**

Advisors

Internal Advisor

Dr. Parvaiz Talib, MBA, PhD
Department of Business Administration
Aligarh Muslim University, Aligarh.

External Advisor

Dr. A K Singh, M Com, Ph D
Department of Commerce,
Faculty of commerce and Business
University of Delhi, Delhi.

**Submitted for the Award of the Degree of Doctorate in
Business Administration.**

Preface

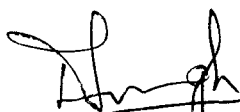
1. The study of '*Motivational Factors of India Youth while opting for a career with Special Reference to Delhi Region*', has been undertaken in fulfillment of the award of Doctorate in Business Administration (DBA) from Aligarh Muslim University, Aligarh in collaboration with All India Management Association (AIMA), New Delhi.
2. The profession of arms, once a coveted career choice at the time of independence, has steadily lost its attractiveness for Indian youth. Possibly, prolonged separation of soldiers from their families, continuous deployment of Army Units on Internal security/Counter Insurgency duties, professional hazards, mismatched pay and allowances as compared to risks and hardships and availability of other lucrative avenues of employment in the private sector in the globalized era are a few factors that deter youth from recruitment into the Armed Forces. This has resulted in a shortfall of 13,000 Officers in the Indian Army, 15 to 20% deficiency in Indian Navy and Indian Air Force.
3. This study aims at measuring the degree of involvement of various individuals in the choice of a career for student respondents, ranking of various professions available in the country by student respondents, importance of various motivators for student respondents, reasons for shortfall of officers in the Armed forces, degree of effectiveness of various measures introduced by the Defence Services to tackle this problem. The study also suggests measures to overcome the present paucity of officers.
4. Are today's youth still motivated by adventurous life style, glamour of uniform, spirit of camaraderie while choosing a career? Has the emerging consumerist culture and the materialistic outlook relegated such intangibles to the background in favour of an available 'Opportunity to Earn a Lot? The study seeks to establish degree of significance of relationship between ranking of Defence Services by student respondents and their demographic profile. This is made possible through application of statistical tool of chi-square test.

Preface

5. The research project has been organized in eight chapters. The research project has been organized in eight chapters. Chapter 1 deals with 'World of Careers'. Chapter 2 pertains to 'The Defence Services-A Profile'. Chapter 3 refers to 'Motivation and Youth'. Chapter 4 is concerned with 'Review of Literature'. Chapter 5 highlights 'Present Study and Research methodology'. Chapter 6 deals with 'Results and Discussion', Chapter 7 with 'Implications and Suggestions for Recruitment Policies Armed Forces' and chapter 8 with 'Highlights, Suggestions and Future Directions'.
6. The bibliography, various appendices containing tables supporting cumulative scores highlighted at tables in Chapters 6 covering results and discussions, questionnaires and abstract of the study are annexed at the end of this dissertation. For better understanding of results of the study, data has been presented in the form of tables, charts, figures and graphs.

Wishing readers informative, happy and interesting reading.

Ansal Institute of Technology,
Sector 55, Gurgaon-122003



(Dharmendra Singh)

Lt Col

Assistant Professor in Management

29 May 2004

Acknowledgement

The present study of '*Motivational Factors of Indian Youth while Opting for a Career with Special Reference to Delhi Region*' has been completed under the supervision and inspiring guidance of Dr. Pravaiz Talib, Reader, Aligarh Muslim University as Internal Adviser and Dr. A K Singh, Reader, University of Delhi as External Adviser. The investigator expresses his indebtedness to Dr. Mohd Naved Khan, Department of Business Administration, Aligarh Muslim University for assisting in the development of research tools. The investigator is grateful to Dr RG Mathur, Senior Lecturer, RAK College of Nursing, University of Delhi for assistance in meaningful analysis of results.

The researcher is thankful to all Armed Forces Officers who responded to the questionnaires readily and provided useful input for analysis of the officers' recruitment problems and the possible remedial measures. Similarly, inputs provided by student respondents of various institutions have been beneficial for the research study. The sincere thanks and indebtedness are expressed to Recruit Clerks of RCC 21, The Bihar Regimental Training Centre, Danapur Cantt (Patna) and personnel of Defence and Employment Company of HQ CIF(U) C/O 56 APO for their sustained hard work in type setting the thesis and assisting the researcher in completing the project ahead of schedule.

Last but not the least, the investigator extends appreciation to the patience and cooperation of his family members, who cheerfully endured his non-availability for domestic and social responsibilities during this period.

Above all, I owe to God All mighty and Her Holiness Nirmala Devi Ji for being latent source of the strength.

The present study is dedicated to all martyred, Indian Army soldiers, who have sacrificed their life during engagement in insurgency operations in J & K and in the NE India.

Lt Col Dharmendra Singh

May 2004

Index

Index

Preface

Acknowledgement

List of Figures

List of Tables

Chapter

I	World of Careers	Page No.
1.1	Introduction	01
1.2	The Process of Career Planning	01
1.3	Making a Choice of a Career	2-3
1.4	Academic Versus Vocational Career	04
1.5	Personality to suit a Career	04
1.6	Design your career	06
1.7	A 'Step Aside' Profession	06
1.8	A word of Caution for Parents	07
1.9	Career and Challenges	07
1.10	Declining Preferences of youth for the Armed Forces As a Career and Background to the Study.	16-18
 2. Defence Services – A Profile		
2.1	Indian Army	19-24
 2.11	 Infantry	 20

Index

	Page No.
2.12 Armoured Corps (AC)	20
2.13 Artillery	20
2.14 Air Defence Artillery	21
2.15 Engineers	21
2.16 Signals	21
2.17 Army Service Corps (ASC)	21
2.18 Electrical and Mechanical Engineers (EME)	22
2.19 Army Ordnance Corps (AOC)	22
2.20 Army Medical Corps (AMC)	22
2.21 Military Nursing Service (MNS)	23
2.22 Army Dental Corps	23
2.23 Intelligence Corps (Int Corps)	23
2.24 Army Education Corps (AEC)	23
2.25 Army Postal Service	23
2.26 Pioneers Corps	24
2.27 Judge Advocate General (JAG) Branch	24
2.28 Remount Veterinary Corps (RVC)	24
 2.2 Indian Navy	 24-30
2.21 Introduction	24-25
2.22 Nature of Work	26
2.23 Executive Branch	26
2.231 General Service	27

Index

	Page No.
2.24 Logistics	27
2.25 Hydrographic Survey	28
2.26 Naval Armament Inspection Officer	28
2.27 Aviation Arm	28
2.28 Submarine Arm	28
2.29 Technical Branches	29
2.291 Engineering (Naval Architect)	29
2.292 Electrical Branches	29
2.293 Law Officer	30
2.3 Indian Air Force (IAF)	30-34
2.31 Introduction	30
2.32 Nature of work	30
2.33 Ground Duty Branch	31
2.34 Flying Branch	31
2.35 Technical Branch	32
2.36 Administrative Branch	33
2.37 Logistic Branch	33
2.38 Accounts Branch	34
2.39 Education Branch	34
2.40 Medical and Dental Branch	34
2.4 Rank, Promotion, Pay and Allowances of Defence Services Officers	34
2.41 Ranks structure	34

Index

	Page No.
2.42 Admissible Allowances	35
2.43 Other Facilities	36
2.44 Promotion in the Defence services	37
2.5 Eligibility Conditions for Recruitment into Officer Cadre of Armed Forces	39
2.51 Army and Navy Commission	37
2.52 Permanent Commission	39-40
2.53 Short Service Commission	40
2.6 Air Force Commission	45-49
Navy Commission	50-52
2.7 Entry for women in the Army/Navy/Air Force (Short Service Commission)	60-64
2.71 Physical Standards Required	62
2.8 Entry in Army, Indian Navy and Indian Air Force (IAF) after 10+2	64
2.81 Naval Engineering College	64
2.82 National Defence Academy	64
2.9 Graduates and Post Graduates Entry into Armed Forces	68
2.91 Combined Defence Services Examination (CDS)	68
2.92 Incentives to NCC Cadets	69
2.93 Educational Qualifications	71

Index

	Page No.
2.10 Special Tests of Selection	74
2.101 Personality Tests	68-74
2.102 Thematic Apperception Tests (TAT)	74
2.103 Word Association Test (WAT)	74
2.104 Group Tests	74
2.105 Interview	74
2.106 Pilot Aptitude Tests	75
2.107 Intelligence Tests	75
2.108 Engineering Knowledge Tests	75
2.11 Entry After 10+2 (PCB group) into Armed Forces Medical Services	75-79
2.111 Medical Corps After 10+2 (Biology Group)	75
2.112 Military Nursing Service (MNS)	77
2.113 Army Dental Corps	79
2.6 Pay and Allowances for Officers	80-81
2.61 Dearness Allowance	80
2.62 City Compensatory Allowance	80
2.63 Transport Allowance	80
2.64 House Rent Allowance	80
2.65 Non Practicing Allowances	80
2.66 Pay scale for officers	81
2.7 Promotion	81-82
2.71 All Arms except AMC, AD Corps, RVC and MNS	81
2.72 Medical	81
2.73 Dental and Remount Veterinary Corps	82

Index

	Page No.
2.8 Allowances	82-83
• DA	82
• Flying Pay	82
• Kit Maintenance Allowance	82
• CCA	82
• HRA	82
• NPA	82
2.9 Other Allowances	83
3. Motivation and Youth	84-103
3.1 Introduction	84
3.2 Meaning of Motivation	84
3.3 Motivation and Behaviour	85
3.4 Model of Frustration	86
3.5 Characteristics of Motivation	87
3.6 Motivational Theories	88
3.7 Applicability of Motivational Theories while Opting for various Careers	89
3.8 Maslow's Hierarchy of Needs	90
3.9 Conceptual Framework	99-101
3.10 Summary	103
4. Review of Literature	104-117
4.1 Introduction	104
4.2 Studies related to career choice and factors influencing career choice-	105

Index

	Page No.
4.3 Enhancing Attractiveness of Armed Forces As a Career	109
4.4 Principal Causes Affecting Armed Forces As a Coveted Career.	111
4.5 Studies related to Socio-economic status of Armed Forces Officers	112
4.6 Recruitment Trends of Indian Armed Forces	114
4.7 Summary.	117
5. Present Study and Research Methodology	118-133
5.1 Need for the Study	118
5.2 Statement of the Problem	119
5.3 Objectives of the Study	119
5.4 Hypotheses	120
5.5 Research Approach and Design	121
5.6 Data Sources	121
5.60 Primary Sources	122
5.61 Secondary Data Sources	122
5.7 Sampling Plan	122
5.8 Operational Definition of Important Terms Used in the Study	123
5.9 Development and Description of Research Tools	124
5.93 Pattern of Analysis	125-128
5.10 Pilot Study	128
5.11 Hindi Translation of Questionnaire	128
5.12 Reliability of the Tools	129
5.13 Procedure for Data Collection	129-131
5.14 Limitation	131
5.15 Chi Square Test	131-132
5.16 Summary	133
6. Overall Results and Discussion	134-259
Introduction	134

Index

Page No.

6.1 Overall Results

6.11	Part I – Analysis of Common Demographic data of both Students and Defence Respondents and Degree of Significance of Relationship between Rankings of Services by Student Respondents and their Demographic Profile.	135
6.12	Part II-Involvement of various Individuals in the Choice of Career, Ranking of Various Professions, Importance of Motivators and Measures Suggested for Improving Attractiveness of Armed Forces (By Student Respondents)	135-136
6.13	Part III–Analysis of Reasons for Shortfall of Officers, Effectiveness of Various Measures, Suggestions for Improving Attractiveness of Armed Forces (By Defence Respondents)	136-137
6.2	Chi Square Test for Measuring Significance of Relationship Between Ranking of Defence Services as a Career by Student Respondents and their Demographic Profile	140-142
6.3	Regional Nativity of Student and Defence Respondents	143
6.4	House Location Wise Distribution of Respondents	146-147
6.5	Religion Wise Distribution of Respondents	148
6.6	SCs, ST, OBC and General Categories Wise Distribution of Respondents	149-150
6.7	Type of School Wise Classification of Respondents	151

Index

	Page No.
6.8 No. of Brothers of Respondents wise Distributions	153
6.9 No. of Sisters wise Distribution	154
6.10 Gender Wise Distribution of Respondents	156
6.11 Age Group Wise Distribution of Respondents	157
6.12 Academic Performance Wise Distribution of Respondents	160
6.13 Educational Status of Parents of Respondents	161
6.14 Families' Income of Respondents	163
6.15 Fathers' Occupation of Respondents	165
6.16 Mothers' Occupation of Respondents	168
6.17 Details of Serving/Retired relatives of Respondents in the Armed Forces	169
6.18 Details of Branches in the Armed Forces of Family Members of Respondents	170
6.19 Details of Designation of Family Members in the Armed Forces of Respondents.	171
6.20 Details of Type of family of Respondents	173
6.21 Summary of Results of Chi Square Tests.	174
6.22 Degree of Involvement of Various Individuals in the choice of Career of Student Respondents	176
6.23 Overall Ranking of Various Broad Categories of Professions by Students Respondents	178
6.24 Overall Ranking of Various Sub Categories of Professions Within Broad Categories	183
6.26 Overall Combined Degree of Importance of Motivators for 150 Student Respondents.	187
6.27 Suggested Measures by 150 Students Respondents to Attract Modern Day Youth for Recruitment into the Armed Forces	192
6.28 Reasons for Short fall of Manpower in the Officers Cadre of the Armed Forces as Perceived by Defence Respondents	204-226

Index

	Page No.
6.29 Degree of Effectiveness of Measures Employed by the Armed Forces to Overcome the Shortfall of Officers	226-237
6.29A Comparative Analyses of Degree of Effectiveness of Measures Implemented to Overcome Shortfall of Officers.	234-238
6.30 Suggested Measures by Defence Respondents for Attracting Youth towards the Defence Services .	238-257
6.4 Summary	258-259
 7. Implications and Suggestions of Motivational Factors of Indian Youth on the Recruitment Policies of Armed Forces.	
7.1 Context	260
7.2 Recruitment policies during Pre and Post independence Era and Upto 70 s.	261-265
7.3 Present Recruitment Policies and Motivation of Indian Youth.	265-267
7.4 General Implications	267-270
7.5 Research Findings Based Implications for the Recruitment Policies of the Armed Forces	270-274
7.6 Suggestions	274
7.7 Summary	276-277
 8. Suggestions Highlights and Future Directions	
8.1 Major Highlights Including Specific Suggestions	278-280
8.2 Future Directions	280-282
 Bibliography	283-284
Suggested Readings	284-300
Appendices (A to T)	327-336
Abstract	337-349

Index

List of Figures

Figure No.	Page No.
1.91. Challenges and Demands of Science and Technology Jobs.	9-10
1.92. Challenges and Demands of Jobs related to Humanities and Commerce Students.	11-12
1.93. Jobs for science stream Students.	13
1.94. Jobs for Humanities and Commerce Students.	14
2.4 Rank Structure of Officers of Defence Services.	34
2.4411. 'Time Scale' and 'Selection' Promotion Policy of the Officers Cadre (Arms).	37
2.4412. Time Period for 'Acting ' Promotion in Army.	38
2.442 'Time Scale' and 'Selection' Promotion in Indian Navy.	38
2.5 Chart Showing Eligibility Conditions for grant of Permanent and Short Service Commission in all branches of Indian Army, Indian Navy and Indian Air Force.	39
2.7 Chart showing Commission for women (Army)	61-62
2.713 Chart showing Commission for women in IAF (Short Service)	63
2.82 Scheme of Examination for NDA.	67
2.91 Scheme of Examination for CDS including OTA	72
2.066 Pay Scales of Defence Officers.	81
3.3. Needs cause Behaviour.	85
3.4. A Model of Frustration	86
3.6 Classification of Motivational Theories	89
3.8 Maslow's Hierarchy of needs.	92
3.9 Conceptual Frame Work	102
4.3 Measures to Improve Attractiveness of the Armed Forces as a career (Results of a Survey)	110-111
6.1. Model showing interplay between motivators of Indian Youth and the Recruitment policies of the Armed Forces including suggested Measures to overcome Shortfall of Officers.(Stage I & II)	138-139

Index

Fig No.		Page No.
6.9111	Degree of Involvement of Various Individuals in the Choice of Career	177
6.912	Cumulative Overall Ranking of Broad Career Options (As Rated by Student Respondents).	181
6.24	Ranking within Sub Categories of Various Professions (By Student Respondents).	184
6.262	Degree of Importance of Motivators and Satisfiers for Student Respondents.	188
6.27	Measures Suggested by Students to Attract Modern Day Youth towards the Defence Services.	202
6.28	Reasons for Shortfall of Officers' Manpower of the Armed Forces (As Perceived by Defence respondents).	208
6.29	Degree of Effectiveness of Various Measures Employed by the Armed Forces to Overcome the Shortfall of Officers.	233
6.30	Suggested Measures by Defence Respondents for Attracting Youth towards the Defence Services (As Proposed by Defence Respondents).	242

Index

List of Appendices

Appendix	Page No.
A Details of Serving/Retired Respondents	301
B Length of Service of Defence Respondents	301
C Rank Structure of Defence Respondents	302
D Details of Combat Arms or Supporting Arms/Services of Defence Respondents	302
E Questionnaire for Students	303-306
F Questionnaire for Defence Personnel	307-310
G Hindi Version of Questionnaire for Students	311-314
H Degree of Involvement of Various Individuals in the Choice of Career of School Students	315
I Degree of Involvement of Various Individuals in the Choice of Career of Under Graduate	316
J Degree of Involvement of Various Individuals in the Choice of Career of PG Students	317
K Ranking of Order of Preference of School Students for Various Broad Categories of Profession	318
L Ranking of Various Broad Categories of Profession by UG Students	319
M Ranking of Various Broad Categories of Professions by PG Students	320
N Ranking Sub Categories of Various Professions in Accordance With Preference of School Students	321
O Ranking of Sub Categories of Various Professions in Accordance With Preference of UG Students	322
P Ranking of Sub Categories of Various Professions in Accordance With Preference of PG Students	323
Q Degree of Importance of Motivators for School Students in the Choice of Career	324

Index

Appendix	Page No.
R Degree of Importance of Motivators for UG Students in the Choice of Career	325
S Degree of Importance of Motivators for PG Students in the Choice of Career	326
T Results of Chi Square Test to establish Degree of Significance Relationship between Ranking of Defence Services and Their Demographic Profile.	327-336

Index

List of Tables

Table No.	Page No.
2.2934 Addresses for Information on Recruitment	71
5.13 Distribution of Population and Samples drawn and the Dates on which Study was conducted.	130
6.21 Frequency Distribution of Ranking of Defence Services into two Classes by Student Respondents	140
6.22 Frequency Distribution of Ranking of Defence Services into three Classes by Student Respondents	141
6.2 Regional Nativity Distribution of Student and Armed Forces Respondents	144
6.4 House Location based Distribution of Respondents	146
6.5 Religion based Distribution	148
6.6 Caste Composition of Respondents	149
6.7 Classification as per Type of School.	152
6.8 No. of Brothers of Respondents Based Distribution.	153
6.9 No. of Sisters of Respondents Based Distribution	155
6.10 Gender wise Distribution of Respondents	156
6.11 Age Group Wise Distribution of Respondents	158
6.12 Academic Performance Wise Distribution of Respondents	160
6.13 Educational Status of Parents of Respondents	162
6.14 Families' Income of respondents	164
6.15 Fathers' occupation of Students and Defence Respondents.	166
6.16 Mothers' occupation of Students and Defence Respondents	168
6.17 Details of Serving/Retired Relatives of Respondents in the Armed Forces.	169

Index

Table No.		Page No.
6.18	Details of Branches in the Armed Forces of Family Members of Respondents	170
6.19	Details of Designation of Family Members in the Armed forces of the Respondents	172
6.20	Details of Type of Family of Respondents	173
6.213	Summary of Chi Square Tests	175
6.22	Calculation of Overall Varying Degree of Involvement of Various Individuals in the Choice of Career of all 150 Student Respondents	176
6.23	Combined Overall Ranking of Broad Category of Various Professions as Rated by all 150 Student Respondents.	180
6.234	Comparative Ranking of Broad Categories of Various Professions as Rated by School, Undergraduate and PG Respondents	182
6.24	Ranking of Subcategories of Professions	183
6.249	Comparative Ranking of Sub Categories of Various Professions within Broad Categories as Rated by School, Undergraduate and PG Respondents	186
6.26	Degree of Importance of Motivators.	187
6.262	Overall Degree of Importance of Motivators for School, UG and PG Respondents- A Comparative Analysis.	190
6.27	Suggested Measures by 150 Student Respondents to Attract Modern Day Youth towards Defence Services	195-201
6.28	Reasons of Shortfall of Manpower in the Officers Cadre of the Armed Forces as Perceived by Defence Respondents	205-207
6.28A	Differences in Reasons of Shortfall in three Wings of the Armed Forces	222-224
6.29	Degree of Effectiveness of Measures Employed by the Armed Forces to Overcome the Shortfall of Officers.	231
6.29A	Comparison of Ranking by Defence Respondents of Degree of Effectiveness of Measures Employed by the Armed Forces to Overcome the Shortfall of Officers	232

Index

Table No.		Page No.
6.30	Suggested Measures by Defence Respondents for Attracting Youth Towards the Armed Forces	239-241
7.7	Suggestions for Improving Attractiveness the Armed Forces	274-275

Chapter 1

World of Careers

1.1 Introduction

The world is changing fast. To keep pace with time, it has become necessary to remain informed about latest developments in various vocations. Deciding about future is a difficult task. The task becomes daunting in the wake of information explosion. There is a need to take into account opinion of people who matter. There is stiff competition and host of pressures to cope with. Every one needs clarity concerning the future. Choice of career involves consideration of various options, modus operandi, risks involved in attainment of goals and the time frame. Such an exercise helps in eliminating or minimizing disappointments or regrets later.

1.2 The Process of Career Planning

Career planning is important at every stage of a person's life. It assumes significance at the higher Secondary/Intermediate and continues upto Graduate/Post Graduation. It is critical even when a person is employed comfortably in a job. It requires an in depth understanding of one's potential, personality traits, abilities, interests, personal values and resources. This basic understanding helps in short-listing suitable options. When planned routes to a career or optional career are chalked out during school days, keeping in mind all attributes, preparation to enter a course and career becomes easy (Tondon, 1998).

Effective career planning envisages a match between requirements for a job and personality characteristics of an individual. Awareness of

needs and aspirations, strengths and weaknesses, likes and dislikes is essential. This, in technical terms, is called SWOT i.e. analysis of Strength, Weaknesses, Opportunities and Threats (Chaffe and Edmonds, 1963)

The process of career planning starts with self-knowledge. It must be backed by actual achievements and behaviors. If required, it may be supplemented by Objective test results (By qualified and experienced Counselors). While choosing a career, there is a need to evaluate one's basic orientation for factors like power, money, status and prestige.

Basic interest in the job is vital for growth in any profession. Progress comes with determination, concerted effort, as also basic inclination for the job. These factors together contribute to a feeling of job satisfaction (Johnson, 1982)

1.3 Making a Choice of a Career

Work is a major source of identity for a person. Choice of career must match personal profile of the person. Youngsters need to take stock of their aptitudes, interests and personality in exercising this choice. They may take recourse to soft and inappropriate options under friend's influence or comply with parents' wishes. Putting a square peg in a round hole is a dangerous approach while choosing a career. When the choice of career is not based on self – knowledge and personal needs, the poor choice in careers results in dissatisfaction and frustration. Dissatisfaction leads to unhappiness, boredom, stress and psychosomatic problems (Rettig, 1974).

The following guidelines may be followed while deciding the career: -

- 1.31 Make a List of Work Options:** Various avenues available for employment need to be identified. There is a need to ensure that the job seeker has the necessary qualification, experience and aptitude for these options.
- 1.32 Broadening Knowledge Base:** This may be achieved by participating in exhibitions, reading and interacting with professionals in the chosen field of interest.
- 1.33 Obtain True Description of the Desired Job:** There is a need to collect in depth information about exact nature of job. Often in glamorous and prestigious jobs, job content may be less than satisfying. Unhappy experience can be avoided by finding answers to simple questions at the outset.
- 1.34 Assess potential Conflict between Personal Values in Vogue in Work Place:** This assessment is particularly important in case of value sensitive people.
- 1.35 Obtain some kind of 'Feel' of the Actual Work Environment:** At times, though, the aptitude and ability may be in line with job requirement; the work environment may not suit the personality of an individual.
- 1.36. Consider Your Inner Self and the Opportunities in the Environment:** SWOT analysis is relevant in this context.

1.4 Academic Versus Vocational Career

Our educational system follows the 10+2+3 system, i.e. going through school, college and University. This is the academic stream while the vocational stream may begin after class X or even at college. The academic pursuit necessarily draws on the intellectual talent of the individual while the vocational stream develops critical job skills. Our system does little to generate respect for manual skill-based work, hence the rush for academic careers. There are limited subject choices for average students. But all is not lost. It only needs a fresh look at the worth of each career with an open mind. (Keller, 1948)

1.5 Personality Types and Career Choice

Personality is a concept by which we view and understand ourselves. It varies and can be seen along a continuum from one extreme to the other in its several dimensions. Some can work indefatigably; others succumb to the pressures of work. Matching occupational requirement with personality characteristics is a very important part of career guidance (Albuquerque, 2001). She gave a personality job fitness theory classifying six personality types and matching them with occupations. The various personality types and possible occupational choices are:

1.51 The Mechanical Personality Type: He is aggressive and enjoys physical activity. He requires skill, strength and co-ordination. Such people prefer engineering, technical and mechanical jobs.

- 1.52 The Investigative Personality Type:** He prefers activities, which require thinking, organizing and understanding rather than feeling or emotion. Such personality types are scientific in their out-look and can go in for research – oriented careers.
- 1.53 The Social Personality Type:** S (he) prefers interpersonal relations to intellectual or physical activities. Service professions are best suited for this personality type. They may also consider international affairs and Foreign Service.
- 1.54 The Conventional Personality Type:** S (he) enjoys rules-bound activities e.g. finance, accounting, banking, actuarial etc.
- 1.55 The Enterprising Personality Type:** S (he) influences others and wants to have power and status. Administrative services, law, public relations, business management and politics are ideally suited.
- 1.56 The Artistic Personality Type:** S (he) is involved in self-expression, artistic creation or emotional activities. Artistic professions are related to the arts, drawing, paintings, music drama, writing etc. (Bhatia, 1996)

1.57 Creativity: Creativity is a dynamic quality in individuals seeking expression in whatever they undertake. It is valuable for careers related to arts, music, creative writing, dance, drama, advertising, mass communication, fashion, designing, all forms of applied art, packaging, animation, cartooning, interior designing, architecture, poetry etc. Nurturing creativity is important. Creativity is described by these words – reflective, unassuming, worrying, and versatile, restless, temperamental, innovative, enthusiastic, absent-minded, independent, determined and sensitive.

1.6 Designing the Career

While the country is facing a crisis providing employment to the youth, there remains a wide gap between opportunities and Human Resources Development (HRD). In a situation, where our planners are bogged down in keeping with the growing population, individual's need for work and channelising of energies assumes critical significance.

Every individual has a unique combination of aptitudes, interests and personality. The difference exists in the assortment of these. This assortment needs to be identified and a new career planned using inputs from existing professions.

1.7 A 'Step Aside' Profession

Certain professions may be considered as possible 'step aside' professions. Some students are bright and have a variety of interests.

All these cannot be tapped or satisfied in a single profession. They need to find a way to give expression to these latent interests. Secondly, in the course of one's life (especially with girls), there are occasions when a full – time job is a hindrance in the fulfillment of other responsibilities e.g. Child rearing, further education etc. In such a situation, a 'step aside' profession serves to fill the gap.

1.8 Parent's Role

Parents need to observe the child carefully, identifying his tastes, making note of his interests and hobbies. They need to consider, what the child likes to do, read books, paint or assemble a model.

Educational psychologists, who use aptitude tests, interest measures and personality questionnaires, can assist parent's judgment to determine natural aptitudes and inclinations of a child. At the end of such a test, a counseling profile is prepared. The process helps to determine whether the young adolescent is creative, more oriented to skill than academics. Vocational guidance does not prove your child's suitability for a job but generally highlights the potentialities and individual values, your opinion and observation and gives alternatives to be considered. There are children who have been academic unfits. They should not be viewed with a feeling of helplessness or rejection. Information on careers can be sought from various publications and Internet. Summer jobs give students an occasion to explore career options besides keeping career development in its clear perspective.

1.9 Careers and Challenges

To assist in choosing and planning career, the following chart highlights challenges and demands in terms of scholastic acumen, personality qualities and special abilities required for decision-making.

The star ratings (based on opinions/impressions) in the chart should be interpreted as follows:-

Average Demanding	*
Fairly Demanding	* *
Highly Demanding	* * *

**Chart – 1.91 Challenges and Demands of
Science and Technology Jobs**

The Career Demands/ Career options	Scientific Temper	Business Skill	Creativity, Aesthetic Sensibility	Physically Demanding	Sociability	Precision & Skill	Professional Challenge
Agriculture	***	**	-	***	*	-	*
Anthropology	**	-	-	*	**	-	**
Architecture	***	**	***	**	***	-	***
Aviation	**	*	-	**	**	***	**
Air Hostess	-	**	**	***	***	*	**
Armed Forces (Technical)	***	-	-	***	**	***	***
Animal Sciences	**	*	-	**	*	-	*
Biotechnology	***	*	*	*	*	-	*
Biochemistry	***	*	*	-	*	*	***
Biologists	***	-	*	-	*	**	***
Chemists	**	**	-	-	*	*	***
Computers (Hardware)	***	**	*	*	**	***	***
Curators	**	*	**	**	**	**	***
Cinematograph	-	**	***	***	**	***	***
Designing	-	**	***	**	**	***	***
Dietetics	**	*	**	*	***	*	*
Dentistry	**	**	*	**	**	***	**
Environment	***	*	**	*	**	-	**
Civil/Mechanical	***	**	**	***	**	*	***
Forestry	**	*	**	***	**	-	*
Food Technology	**	**	**	*	**	*	**
Fishery Sciences	***	*	-	*	*	*	**
Geology	***	*	-	**	**	-	***
Horticulture	**	**	***	***	**	**	*
Home Science	**	*	**	*	**	*	**
Meteorologists	***	-	-	*	-	**	**
Mathematics	***	-	-	-	-	*	***
Engineering (All Branches)	***	**	*	**	**	***	***

Source – Tondon, (1998).

The Career Demands/ Career Options	Scientific Temper	Business Skill	Creativity, Aesthetic Sensitivity	Physically Demanding	Sociability	Precision & Skill	Professional Challenge
Merchant Navy	**	**	-	***	**	**	**
Mining	***	-	-	***	*	*	**
Medicine	***	***	*	**	***	***	***
Nursing	**	-	*	***	***	**	**
Indian Navy	**	-	-	***	**	**	**
Occupational Therapist	*	**	-	**	***	**	*
Physiotherapist	*	**	-	***	***	**	*
Physicist	***	*	-	-	-	**	***
Pharmacy	**	**	-	-	**	*	**
Speech Therapy	**	**	-	**	***	*	**
Technologist	***	**	**	**	**	**	***
Veterinary Science	**	**	-	*	**	**	**

Averagely Demanding * Fairly Demanding ** Highly Demanding ***

**Chart –1.92 Challenges and Demands of
Jobs Related to Humanities and
Commerce Students**

The Career Demands/ Career options	Scientific Temper	Business Skill	Creativity Aesthetic Sensibility	Physically Demanding	Sociability	Precision & Skill	Professional Challenge
Accountancy	*	**	*	**	*	***	**
Advertising	**	***	***	*	**	*	***
Indian Air Force	**	*	*	**	*	***	**
Anthropology	***	**	**	**	***	*	*
Archeology	**	*	***	***	*	*	**
Army (Non Technical)	*	*	*	***	**	**	***
Art Direction	*	**	***	*	**	**	***
Banking	**	***	*	**	***	***	**
Beautician	*	**	***	*	**	*	**
Border Security Force	*	*	*	***	**	*	***
Broadcasting	*	*	**	*	***	**	**
Business Management	**	***	*	**	**	*	***
CBI	**	*	**	**	**	**	***
CA	*	**	*	*	*	***	***
Cinematograph	**	**	***	*	*	**	**
Civil Services	**	**	***	*	***	*	***
Coast Guard	*	*	*	***	**	**	**
Company Secretary	*	*	**	*	**	**	**
Cost & Works Accountant	*	**	*	*	**	***	**
Dance & Drama	*	**	***	**	**	**	**
Economics	*	*	**	**	**	**	**
Editing	*	**	***	**	**	***	**
Education	**	*	*	**	*	*	**
Export Management	**	**	**	**	*	**	**
Fashion Designing	**	**	***	**	*	**	**
Footwear Designing	*	*	***	**	*	**	**

Averagely Demanding * Fairly Demanding ** Highly Demanding ***

Source – Tondon, (1998)

The Career Demands/ Career options	Scientific Temper	Business Skill	Creativity, Aesthetic Sensibility	Physically Demanding	Sociability	Precision & Skill	Professional Challenge
Foreign Languages	**	*	**	*	**	**	**
Furniture Designing	**	**	***	**	*	**	
Gems & Jewellery	*	**	***	**	*	**	**
History	*	*	**	*	*	**	*
Hotel Management	*	**	**	*	**	*	**
IAS, IFS & IPS	*	*	**	**	**	*	**
Insurance	*	**	**	*	**	**	*
Interior Designing	*	**	**	*	*	*	**
Journalism	*	*	**	*	**	**	**
Law	*	*	**	*	*	**	**
Marketing	**	***	**	**	**	*	*
Media Executive	*	**	**	**	**	*	*
Modeling	*	**	***	**	**	*	***
Para Military Forces	-	**	-	***	*	**	**
Photography	*	**	**	*	*	**	*
Physical Education	**	*	*	***	*	**	**
Production	*	**	***	**	*	*	**
Psychology	*	*	*	*	**	*	**
Public Relations	*	**	***	*	**	*	**
Railway Services	*	*	*	**	*	*	**
Social Work	*	*	*	**	***	*	*
Sports	**	-	*	***	-	**	***
Teaching	*	**	*	-	-	**	**
Textile Designing	*	*	***	*	*	*	*
Travel & Tourism	*	**	*	**	**	*	**
Vital Communication	*	**	**	-	**	*	**
Correspondence Education.	*	*	**	*	*	*	**

Averagely Demanding * Fairly Demanding ** Highly Demanding ***

CHART-1.93
Jobs for Science Stream
IF YOU CHOOSE SCIENCE
 You will be studying subjects like Maths, Physics, Chemistry, Zoology, Botany, Statistics.

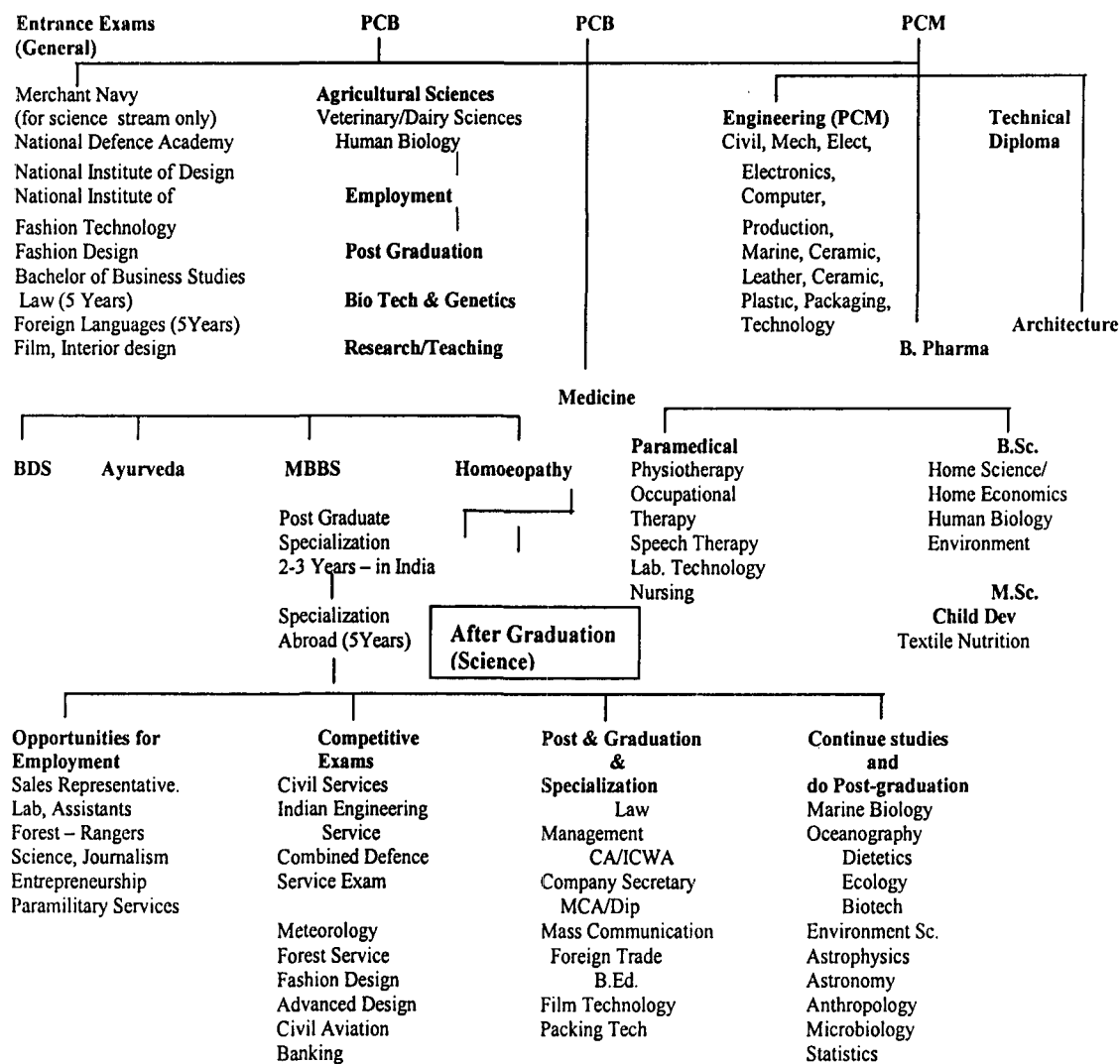
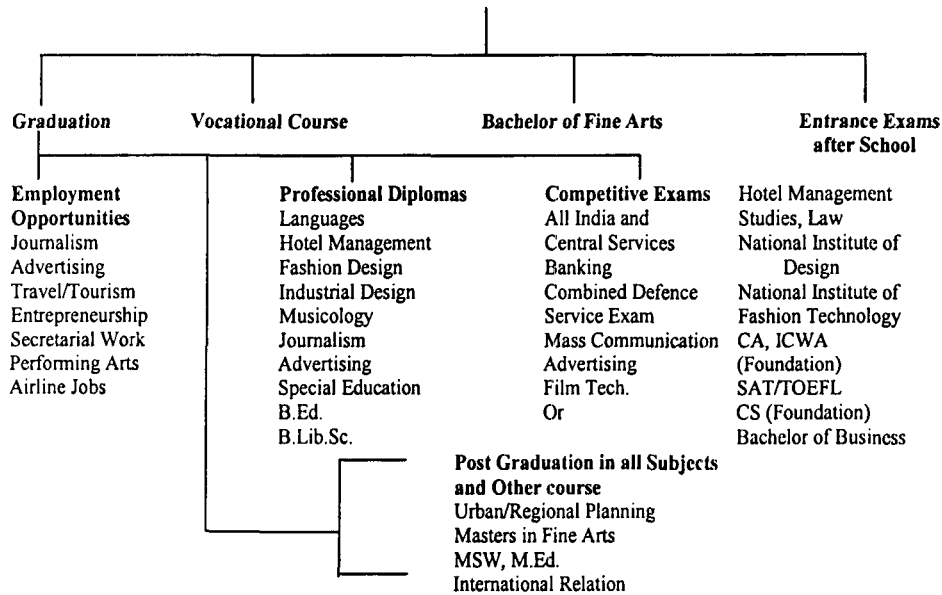
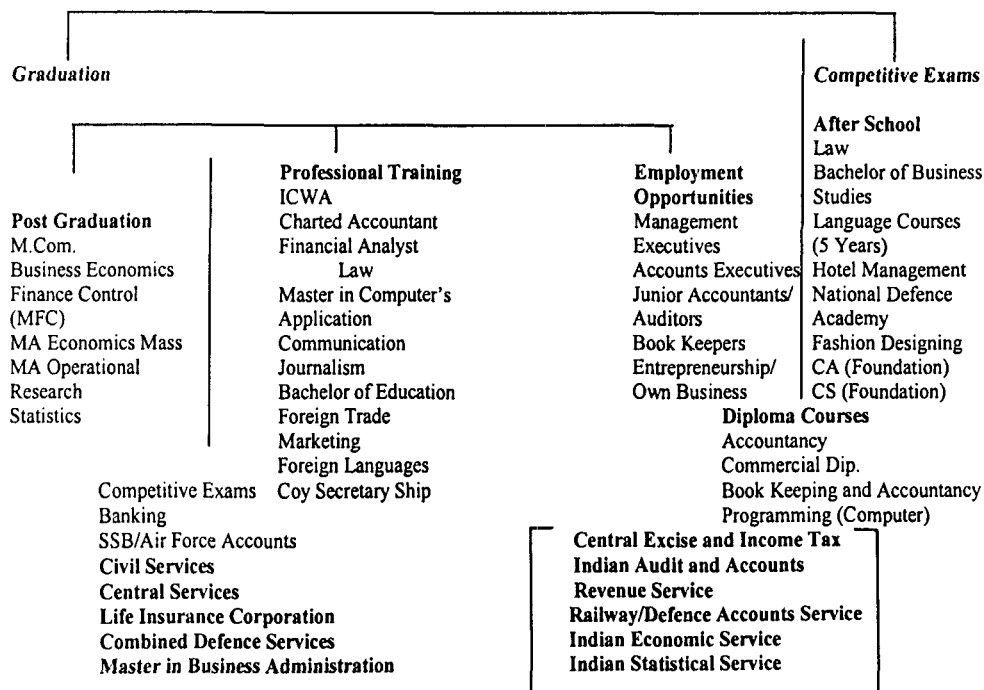


CHART -1.94
Jobs For Humanities And Commerce Students
IF YOU CHOOSE HUMANITIES OR COMMERCE
 You will be studying subjects like History, Political Science, Philosophy,
 Psychology, Economics, Sociology etc.



If you choose commerce,
 You will be standing subjects like Economics, Accountancy, Book Keeping
 Secretarial Practice, Mathematics, Commerce.

AFTER XII



1.10 Career in Armed Forces and Modern Day Youth

Youth is guided by several social-economic-psychological factors, while choosing a career. Predominantly aptitude, capability and social environment play a major role in deciding for a career. While the bulk of the youth opt for white-collar jobs, which offer them best possible monetary and non-monetary incentives; section amongst them opts for a life of adventure and hardships. Motivation of youth keeps varying from time to time depending upon the environment and opportunities offered to them. (Mahajan, 1999).

Even as the Army Headquarters in New Delhi celebrated the victory in Kargil, a section officers in South Block deliberated to solve one of the most serious problems-the Army faces: a deficit of 13,000 officers. The crucial problem of shortage of officers has been there for some time, hovering at around an alarming 30 percent. The Indian Navy has a shortage of 5.68% and IAF 7.47% officers (Balaram, 1997).

A study recently conducted by market research agency MODE amongst those considering the army as a career shows that while the army is considered to be an organization that inculcated leadership qualities, it still suffers from an image of offering a career fraught with risk and danger. The problem, according to a senior officer, is “the increased involvement of the army in counter insurgency operations”. Caught in the thick of battle in Kashmir and the North-East and earlier in Punjab, there has been little respite for the infantry, for the units keep moving from one troubled spot to another, leaving no room for family life (Kumar, 1998).

Officers trying to cope with the problem recently circulated an internal note, which said, “The army has for long faced large scale deficiencies in the officer cadre, particularly in the junior ranks. While the overall shortage is in the region of 30 percent, the deficiencies in the ranks of Captains and Lieutenants are as high as 40 percent,” it noted with a sense of urgency that with the extensive involvement of the army in combating insurgency in the country, coupled with a distinct qualitative and quantitative increase in militant activities, particularly in the post-Kargil period, such large scale deficiencies of young officers can no longer be ignored. The report says that since counter insurgency operations are “Junior leader-centric”, shortages in units have greatly hampered such operations, particularly in the extremely rugged terrain and hostile climatic condition in which such combat is generally carried out. Grappling with the problem of a shortage in its ranks, the army hired top advertising agency-Hindustan Thompson Associates (HTA) to turn a nation-wide advertising blitz through print and television to attract young people. First commissioned in 1997, the army kept aside a budget of Rs. 5 crores for the project in the hope that the campaign will create awareness about the army as a career option. It hopes that the audio-visuals, shown on channels like MTV and Star World will help build a relative preference for the army vis-à-vis other career options and attract the youth from metros and not just towns. The problem, however really is of quality, for even though awareness has grown since the advertisement campaign was launched, the rejection rate is still very high. And the problem persists. It came up with challenging slogans. “Do you have it in you?”. To be on top of Mt. Everest at age of 23; to command 32 men who would live or die by your word or to land a chopper on a river of ice. The “Do you have it in you?” line has been in currency since 1997 but as MoDE research

found, the youth in the metros believe that the army does not offer a good salary. Besides, it comes packaged with a high risk factor. The campaign is being targeted at the qualified youth like engineers and MBAs. It so happens that this segment is looking to the corporate sector, which offers fat pay packets and perks. The campaign is meant for people who seek adventure. It is for those who want challenge and not a nine-to five job. It is difficult to compete with Multinational Companies (MNC) who offers a number of add-ons and glamorous life style.

The agency is now trying to address the upwardly mobile lifestyle aspect in its campaign by using big pictures, which show army officers at evening balls and at polo grounds. Though the emphasis has shifted to “the other side of life” that the army offers, the problem is serious and long term. So serious, in fact, that in an effort to make up for the shortfall, the army-in an unusual decision had cut short the training period at IMA and National Defence Academy (NDA) by six months. But as the officers internal note points out, “With these measures, we plan to induct approximately 1,400 additional officers by the end of 2001. However, the deficiency level of officers will only be brought down to 20 percent by the end of this decade and to 10 to 15 percent by 2020 (Baweja, 2002).

Considering the fact that nearly 60 percent of army officers don’t make it above the rank of Lt Col and only about 40 percent go on to become colonels, the army will need more than just an aggressive ad campaign to sell itself as an option that can compete with today’s corporate world. In an attempt to attract talent, the Armed Forces Headquarters have mooted proposals for Assured

career Progression (ACP) upto the rank of Colonel /Equivalent to the Ministry of Defence during July 2002. An image projection campaign, 'The Armed Forces want to make you ultimate winner in life' has been launched. The creation of additional vacancies from Colonel/Equivalent onwards and a new rank of Colonel General above Lt Gen seeking parity with IAS/IPS have been sought. However, the bureaucratic hurdles at MoD, the Finance Ministry's approval and the cabinet committee's deliberations are few milestones to be crossed.

1.11 Summary

This chapter dealt with the process of career planning which encompasses the exercise of a choice for a profession. The types of personality and their suitability for various jobs have been highlighted. The parents play an important role in guiding their children to a suitable career keeping in view their attitude and aptitude. Requirements of scientific temper, business skill, creativity, aesthetic sensibility, physique, social traits, precision and skill for various Humanities and Science and Technology jobs have been highlighted. In the end, the persisting shortfall of officers in the Armed Forces and the Media Campaign to motivate the prospective youth conclude the chapter.

Chapter 2

Defence Services – A Profile

2.1 Indian Army

Army constitutes one of the branches of the Defence services where the forces are trained to fight on land. The regular Army consists of armed personnel (troops), their equipment, weapons and military bases. Every nation has an army for defending the country. The size and topography of countries decides the requirement of troops, clothing, weapons and support systems. The continuous training and exercises keep the troops combat ready. They require high mobility and tremendous fire power. Highly advanced and developed countries today rely on armoured personnel carriers, tanks, missiles, helicopters, air borne artillery, mobile field guns, nuclear power, etc., whereas developing nations rely more on trained infantry and guerilla warfare because they do not have sufficient resources for purchasing modern armaments. The Army defends the geographical boundaries of the country from hostile neighbors as also distant invaders. The same army can be used to take over the territory of the enemy country. Hence the army is trained for both offence and defence. Army offers civilians aid during emergencies like floods, earthquakes, during civil riots and insurgencies, etc.

Nature of Work: Army comprises Infantry, Armoured Tanks, Artillery, Engineers, Communication troops and other supporting services who look after clothing, food, transportation, repair of equipments and give medical help.

- 2.11 Infantry (Inf):** Infantry fights the enemy on foot by using rifles, sten guns, grenades, machine guns, mortars, small rockets etc. It holds the ground by physically occupying it during invasions. It defends the ground and borders during peace. For high mobility they have armoured personnel carriers and other vehicles.

Mechanised Infantry (Mech Inf): To operate in conjunction with tanks, foot soldiers, i.e. Inf needs to have matching mobility. Such an Inf advances in Inf Combat vehicles (ICVs) equipped with Anti tank missiles. Soldiers inside such vehicles can fire on the move and remain in communication with tanks to achieve synergy.

2.12 Armoured Corps (AC)

Armoured Corps are constituted by Regiments that destroy enemy tanks or are used in attacking the enemy. This is one of the prestigious arms of the army. It is also used for enemy **Reconnaissance** for gathering tactical information and for countering any airborne enemy along with infantry in armoured personnel carriers.

2.13 Artillery (Arty)

Artillery has two sub-divisions: first is air Defence guns and missiles which are used for defending vulnerable targets from enemy air attack like airfields, vital defence installations, installations of economic and catastrophic importance such as dams, nuclear power houses, etc. Second are the field guns, rockets and tactical missiles, which are used for ground fire support to Infantry or Armoured Regiment. Air observation personnel fly helicopters, guide their artillery fire and fire rockets on enemy positions. They also drop our

troops behind enemy lines, supply arms and ammunition to troops.

2.14 Air Defence Artillery (AD Arty)

Protects own Vulnerable Areas (VAs) and Vulnerable points (VPs) e.g. air fields, Communication centres against enemy air strikes etc.

2.15 Engineers

These armed personnel help in rapid movement of the three arms by building roads, bridges, airfields and destroying enemy bridges, putting obstacles for enemy movement, laying mine fields for their defence and destroying enemy minefields. They construct camps and accommodation for troops; prepare helipads, roads and electric power stations for camps. They do survey work, make maps and destroy unexploded bombs.

2.16 Signals

Signals personnel operate and maintain communication link between troops in the battlefield, army establishments, between other arms and civil requirements of the army. They also specialize in control of electronic warfare. Modern, rapid and accurate communications are an essential part of army weapon system.

2.17 Army Service Corps (ASC)

ASC personnel are involved in the mobility of troops, vehicles, food, petrol and other fuels, arms and ammunition, movement of men and material by train and port operations. They also provide rations for troops, fuel and ammunitions. They are also responsible for storing various items. They are in charge of field postal services in forward

areas. They also provide courier service for carrying classified documents.

2.18 Electrical and Mechanical Engineers (EME)

Troops of this service are concerned with maintenance, repairs and fabrication of technical equipments. They take care of items ranging from rifles to vehicles, missiles, tanks, other weapons, communication equipment, helicopters, and electric equipment. In fact all that army requires and that can be used after repairs, is the concern of EME. The working staff includes Mechanical Engineers, Electrical / Electronic Engineers, Aeronautical Engineers, Electronics and Communication Engineers. For this branch, army recruits engineers for its officer's cadres and trains these personnel further according to its needs.

2.19 Army Ordnance Corps (AOC)

These army personnel are responsible for procuring, storage, maintenance and issue of all types of hardware, i.e. tanks, weapons, ammunition, tents and personal clothing, etc. They also store and preserve ammunition, missiles and bombs, etc.

2.20 Army Medical Corps (AMC)

Medical Officers provide health care for all three services personnel and their families. They render advice on occupational and community medicine as well. They manage hospitals, clinics and MI rooms. Army trains its own doctors, nursing officers and para medical staff at Pune and other large hospitals. They also enrol doctors and dental surgeons, trained surgeons trained in other medical colleges.

2.21 Military Nursing Service (MNS)

Nursing staff takes care of patients whilst helping to manage a ward. They nurse service personnel and their families.

2.22 Army Dental Corps (AD Corps)

They work in dental centers looking after the dental health of defence personnel. Medical facilities for troops and families are available in hospitals. Enrolment and training of all medical and paramedical staff is done in the Army Medical Corps. Doctors are seconded to Navy and Air force as well.

Other Services

2.23 Intelligence Corps: This branch interprets and analyses information gathered through various sources to have an idea of the enemy's movement. Personnel of this branch specialize in signal intelligence, photographic interpretation, decoding of coded messages, combat and protective security, etc.

2.24 Army Education Corps (AEC): Continuing education and teaching is essential for troops to ensure that they can keep pace with the advancement in technology, weapon systems, electronics and computerization etc. Education officers and other JCOs are enrolled as teachers for educating the troops and officers.

2.25 Army Postal Service (APS): This branch looks after the postal needs of army, their men and families. All non-classified and personal mail, money orders and parcels etc are sent from or to forward areas through this service.

- 2.26 Pioneers Corps:** This branch provides troops with labour in forward areas for lifting heavy loads e.g. ammunition, especially in those places where civilians can not be employed for reasons of security.
- 2.27 Judge Advocate General:** Law graduates are enrolled directly for providing legal help to army for dealing with civil cases and for disciplinary action against serving personnel. Legal officers advise on evidence for court martial, drafting charges and conducting prosecution. They also provide legal advice to staff.
- 2.28 Remount Veterinary Corps:** For supporting its troops army runs dairy farms and a few agricultural farms. For carrying guns and heavy load of ammunition, rations, etc., to high attitudes they need special breed of mules and for tracking enemy spies and infiltrators, specially trained dogs. For maintaining and running these establishments they need trained agriculturists (M. Agri.) and veterinary surgeons (B. V. Sc. & A. H.). These officers run military farms and other animal stables.

2.2 Indian Navy

2.21 Introduction

The oceans are becoming important day by day. As land bound resources are fast depleting, the oceans hold the potential to meet mankind's future needs of food, energy and minerals. With oceanic research and exploration technology expanding rapidly, nations are making additional efforts to safeguard their ocean resources. India has a 7500 km coastline and over 2 million sq kms of exclusive economic zone (EEZ). In view of a large number of

is land territories, India maintains a strong Navy. The Navy remains in a state of preparedness during peace and war too. To retain a dominant position and to cope with our ever-expanding responsibilities at sea, planned growth of the Navy is a national need.

Navy consists of a nation's combat fleet, its supporting ships, their personnel, the training establishments and the land bases. Most maritime nations with large navies have an air branch of their own; their navies differ in size and fighting strength of the fleet. The fleet consists of patrol boats; torpedo crafts, which safeguard coastal regions.

Warships such as aircraft carriers, cruisers, destroyers, frigates and submarines operate on high seas. Support ships, also known as auxiliary ships, provide them with fuel, ration, and repair facilities and various other services. It is already the strongest in the Indian Ocean and the 7th largest Navy in the World. The Indian Navy today is a well-balanced, cohesive and effective three-dimensional service, capable of operating above, on and under the surface of the oceans and safeguards the national interests.

Of all the diverse elements that go into the making up of an effective Navy, human resources are of key importance. Despite the latest equipment, the single most important factor even today is the officer and his men. They ultimately meet the challenge at sea. For the Navy to be efficient, it thus requires well-trained and motivated manpower.

2.22 Nature of Work

The Navy has a role to protect and safeguard the country's exclusive economic zone, the ocean resources from exploitation by other countries and protect the coasts from any invasion, control the sea in war time to ensure safe passage of our own ships and deny passage to the enemy ships, escort friendly merchant ships, attack enemy ships and submarines and defend offshore installations. During invasion, navy attacks enemy coastal defences, fires on onshore targets by cruisers and destroyers or bombards them through aircraft carriers-based fighter bombers. Amphibious ships launch invasion through sea. Thus the main role of Navy is its own coastal defence, control of sea and coastal attack and invasion of enemy territory. The life of a Naval Officer is a mix of many things: hard work, professionalism, risk and adventure. The Naval officers get the opportunity to move around and visit different places within India and abroad meeting a variety of people. There is an important hall mark of being at the vanguard of the nation's defence. A Navy Officer holds a key position at sea on an operational ship or submarine, flying airplanes, an integral part of ship, onshore establishments coordinating the activity of the fleet, providing training or manning technical support and back up facilities.

2.23 Executive Branch

This is the Operational Branch of the Navy. Only officers of the Executive Branch at sea can exercise command of ships. There are hosts of opportunities in any of the three arms of the branch: (a) General Service; (b) Aviation Arm and (c) Submarine Arm.

2.231 General Service: Executive Officers are both ‘working’ and ‘fighting’ during war from the ship. They are vital part of the complex system that manages the ship and also uses the ship as an instrument of tactical warfare. Executive officers learn to have a good understanding of the ship’s capabilities and limitations and can turn them to their advantage. It is for this reason that an Executive Officer alone can aspire to command a naval ship.

The Executive Officers specialize in:

- Gunnery and missiles,
- Navigation and direction,
- Torpedo and anti-submarine warfare,
- Communications,
- Logistics management,
- Hydrography, and
- Armament inspection

Within the branch promotional changes are not affected by choice of sub-specialisation, for instance the Commanding Officer of a frigate could have been a pilot and that of a guided missile frigate, a submarine sub-specialist.

2.24 Logistic Officer: A modern warship is a complex fighting unit, but it is also a mini township, a community of several hundred people who have to be fed, clothed and paid. Whatever the ship’s role and wherever it may be, it has also to be constantly supplied with fuel, water and spares for the vast array of sophisticated equipment and machinery. At sea or on shore, the Logistics officer has a vital part to play in the technical and human aspects of the ship’s organization. It is

a job that requires exceptional managerial skills and the ability to work under pressure.

2.25 Hydrographic Survey: This is small but crucial specialized branch. It is responsible for collecting information needed for the charts used by the Indian Navy and other Navies around the world. A person looking after this work has option to remain a Surveyor throughout his career for other shore-based appointments.

2.26 Naval Armament Inspection Officer: These specialist officers inspect the armaments supplied to the Navy by various agencies. While they ensure the quality, safety and reliability of naval armament and stores, they are also responsible for in-house research and development leading to indigenisation.

2.27 Aviation: For those with a fascination for the skies, the Navy offers opportunities for pilots and observers who act as airborne tactical coordinators of maritime warfare. While most navy pilots fly ship-borne helicopters and shore-based maritime reconnaissance aircraft, some fly the V/STOL Sea Harrier, Naval aircrafts locate and attack enemy surface ships and submarines and take part in amphibious warfare, search and rescue, casualty evacuation, etc. For this, specialized training is imparted at Goa and Kochi.

2.28 Submarines: Those who enjoy the challenge of new frontiers meet the medical standards and have an exceptional record, can join submarines. These new hi-tech war machines have awesome firepower, state-of-the-art weapon control systems, computer controlled machinery and have a very high standard of habitability. One major responsibility of the submarines in peace time is to train for war as effectively as possible in the knowledge that this will contribute to its prevention. Training is conducted at Visakhapatnam and on completion; Dolphin badge is given to members of this very elite arm of the Navy.

2.29 Technical Branch: Modern ships, submarines and aircraft abound with advanced technology/machinery for steam, diesel, gas turbines or combination of these. The Engineering Branch is responsible for keeping all these equipment serviceable. There are opportunities to work in shore jobs in naval dockyards, laboratories and indigenous production units. Navy employs engineers of various disciplines, who are trained further at the Naval College of Engineering at Lonavala near Pune and Electrical Training Establishment at Jamnagar. The career interspreads with technical training courses upto post graduation level in India and possibly abroad.

2.291 Engineering (Naval Architect): These officers specialize in warship construction. The Indian Navy today employs the largest pool of trained Naval Architects in India. Naval Architects are involved in design, construction, quality control, repair and new construction work of naval vessels. With the Navy going for more and more sophisticated warship production within the country itself, the Corps of Naval Architects offers opportunities to keep abreast of high technology in ocean engineering.

2.292 Electrical Branch: A warship is a floating mini-city and has its own power generation and distribution system. In addition, complex weapon systems, missile systems, underwater weapons, radars and radio communication equipment form a major part of a warship's equipment. A majority of these are either computer-based or computer aided and incorporate the latest trends in electronics and microwave engineering. An Electrical Officer deals with computer-based or computer aided weapon systems, missile systems, underwater weapons, radars and radio communication equipment. For a ship to be able to fight effectively, all the equipment must be kept working at

peak efficiency. Electrical Officers have an option to pursue post graduate courses in India and abroad.

2.293 Law Officers: A separate cadre of Law Officers deals with the legal needs of the Navy. Law officers advise on evidence in court martial and other disciplinary actions and give legal advice to naval staff on various civil matters.

2.3 Indian Air Force (IAF)

2.31 Introduction

The Air Force is the youngest of the three services, which was commissioned on **8th October 1932** with four single propeller engine wapiti aircrafts, six pilot officers and two airmen. Today as sentinels of the sky, it guards the countries' sky against external aggression from air and with active participation of Army and Navy it supplements and complements their defence and offence endeavour. Today the Air Force has some of the most sophisticated fighter aircrafts like Mirage 2000, MIG 27, Jaguar, MIG 25 and MIG 23 and MIG 21. Some more are likely to join the bandwagon. The transport wing has massive size IL 76 (Gajraj), AN 32 and other smaller aircrafts. Helicopter squadrons have a fleet of small and large helicopters like MI 17, MI 26, and MI 35. Thus, our Air Force is one of the major air arms to be reckoned with in the world and can boast of the best-trained men and material force which is engaged in the defence of our country.

2.32 Nature of Work

The major constituent of Air force is the aircraft, both for defence and offence. The aircraft is complemented and supplemented by ground defence missiles. Hence, the entire service is engaged in the flying

of aircraft and the Pilot is the key person in the organization. For operational readiness of the flying machines, infrastructural strength of highly trained and qualified manpower is required.

2.33 Ground Duty Branch

The following elements constitute the ground duty branch: -

- Technical Branch
- Administrative Branch
- Administrative officer
- Air Traffic Controller
- Fighter controller
- Logistics Branch
- Accounts Branch
- Education Branch
- Meteorology Branch
- Medical Branch

2.34 Flying Branch

Flying Branch has following four categories of aircraft flyers:

- Fighters and fighter bombers
- Transport
- Bombers
- Helicopters

Pilots usually specialize in one type of aircraft. The navigators fly in the transport and bomber aircrafts only. They assist the pilots in navigation. Pilots are employed exclusively in flying duties. However,

they may also be assigned other duties. Fighter Pilots are trained in air fights to shoot down enemy aircraft and attack ground targets in enemy territory. They fly at 2 to 2.5 times the speed of sound. Fighter-bombers can match this speed today. Bombers drop bombs, missiles and other explosives on enemy targets. They are equipped with electronic devices, radars and cameras for pinpoint bombing and target acquisition. Navigators in these aircraft direct pilots to the site by navigational equipment, radars and other optical devices and release the bombs. Transport Pilots carry men, material and explosives to required places.

They also carry army personnel, their weapons, guns and light vehicles from one theatre of war to another. Navigators in these aircrafts chart the route, supervise loading of men and equipment, work out fuel requirements and check the flight path with maps during the fight. Helicopters are used for carrying personnel and material including hardware and ration to those places, heights, and terrain where it is not possible to make an airfield or road but a helipad can be made. Helicopters are used to support both Air force and Army and if needed even Navy as it can land on the ship's deck.

2.35 Technical Branch

The engineers work in either of the two areas, one dealing with the aircraft and its weapon system are Aeronautical Engineers in Mechanical Branch – AE (M). They are concerned with the operational readiness of aircrafts so that these machines can deliver the maximum punch to the enemy when needed. The other Aeronautical Engineers in Electronic Branch – AE (E) maintains most sophisticated electronic networks of communications from ground to air and vice versa; install, maintain, operate defence radar systems; operate other

electronic gadgets, sophisticated computers; maintain and operate other ground defence electronics equipment. Hence air-worthiness of fleet, effectiveness of aircraft as a weapon in offence and defence, ground defence through surface to air missiles, etc., requires worthy and intelligent manpower for this branch of service.

2.36 Administrative Branch

Administrative Officer: An Administrative branch officer is responsible for personnel management and administration of the Air force bases and plays a key role as a trained personnel manager for motivating the work force to deliver the desired result through a high order of operation preparedness necessary for the air force.

Air Traffic Control Officer: An administrative branch officer is also required to function as an Air Traffic Control Officer to provide control and advisory services in order to enable the pilots of military and civil aircrafts to conduct their flights with total safety in all weather conditions.

Fighter Controller: As an important part of front line organization of air defence systems, the Administrative Branch Officer may be required to operate as a fighter controller to counter enemy threats from the air by using modern electronic counter-offensive equipment.

2.37 Logistics Branch A Logistics Officer is responsible for the logistic support in IAF. He is responsible for provisioning of aircraft spares, mechanical transport, fuel, armament and explosives flying and other clothing items, rations and other items essential for day-to-day running of the organization and sustaining its manpower. The Logistic Officer, by making use of the latest material management techniques,

accomplishes the important task of supply management efficiently and in a cost-effective manner.

2.38 Accounts Branch

An accounts Officer in the IAF is required to analyze the cost and fund requirements, monitor the expenditure and unit fund, plan and forecast the budgetary requirement of the air force. He functions as a financial controller with diversified activities where accounting functions play an important role not only in financial matters, but also in the welfare and inter-personal relationships which have a direct bearing on the morale of the air force.

2.39 Education Branch

The Education Branch officers are mainly responsible for designing training programs which incorporate the latest technological developments. In training institutions they teach a variety of subjects like science, Computer Technology, Military Science, etc. As an Education Officer at a station, he is responsible for guiding the personnel in furthering their academic qualifications. He also organizes and runs the air force Schools for children of air force personnel.

2.40 Medical and Dental Branch

Officers from Army Medical corps are seconded to Air force. Air force runs some hospitals and clinics where even Army and Navy personnel are entitled for treatment and vice versa.

2.4 Rank, Promotion, Pay and Allowances of Officers

2.41 Ranks Structure

The following chart gives the rank, their equivalence in the three arms of Defence Services For the pay scale, allowances, a reference may be made to recommendations of 5th Pay commission.

Fig2.4- Rank Structure of Officers of Defence Services Officers

Rank-Army	Rank-Navy	Ranks-Air force
Lieutenant	Sub Lieutenant	Flying Officer
Captain	Lieutenant	Flight Lieutenant
Major	Lieutenant commander	Squadron Leader
Lt Colonel	Commander	Wing commander
Colonel	Captain	Group Captain
Brigadier	Commodore	Air Commodore
Major General	Rear Admiral	Air Vice Marshal
Lt General	Vice Admiral	Air Marshal
VCAS/GOC-in-C	VCNS/C-in-C	VCAS/AOC-in-C
General	Admiral	Air Chief Marshal

2.42 Admissible Allowances

The following are allowances, which are admissible to all officers: -

- Outfit allowance, once in 7 yrs.
- Kit maintenance.
- Dearness allowance.
- City compensatory.
- Separation allowance.
- Disturbance allowance.
- Expatriation.
- Qualification grants.
- High altitude allowance (admissible as per Govt rules).

The following are allowances admissible to certain specialisation, courses and inclement postings:

- Flying pay to pilots in Airforce, Navy and Army.
- Submarine pay in Navy.
- Specialist and technical pay. Technical pay to graduates in Engineering.
- High altitude, field area allowance, Counter Insurgency Allowance.
- Diving allowance.
- Survey pay in Navy.

2.43 Other Facilities

Following are the other facilities, common to all three services that are not easy to come by in civilian life.

Leave travel – Leave benefit and travel concessions for officers and their families.

Accommodation – Furnished accommodation at concessional rates according to rank and marital status.

Medical – Free medical treatment in Service hospitals for Officers and their families.

Schooling and Transport for Children – Concession in tuition fee and school transport facility are available to children.

Food – Officers are entitled to free ration.

Group Insurance Scheme – Officers are covered under the scheme.

Housing Scheme – The three services have special housing scheme for officers.

Loans – Granted for House building/car/scooter as per scales provided from Government from time to time.

Pension – Apart from regular pension other schemes such as Disability Pension, Invalid Pension Gratuity, Family Pension, and Special Family Pension are also provided.

Resettlement Prospects – Officers are provided with job oriented training for resettlement prospects on retirement.

2.44 Promotion in the Defence Services

2.441 Army – Promotion policy followed in the Army is as follows:-

Substantive promotions – The following are the service limits for the grant of the substantive promotion to higher ranks

Fig 2.4411 'Time Scale' and 'Selection' Promotion Policy of the Officers' Cadre

2.4412 Acting Promotion – Officers are eligible for acting promotion to higher ranks on completion of the following minimum service limits subject to availability of vacancies. They will only get the rank pay and not the substantive pay of the rank.

Fig 2.4412 Time Periods for 'Acting' Promotion

Captain	3 years	Colonel	8 ½ years
Major	6 years	Brigadier	12 years
Lt. Colonel	6 ½ years	Major General	20 years
		Lt. Gen	25 years

BY TIME SCALE	
Ag. Su. Lieut to Sub Lieut	Inducted as commissioned officer
Sub Lieut to Lieut	4 years of commissioned service
Lieut Cdr to Cdr	10 years seniority as Lieut
Lieut Cdr to Cdr (if not Promoted by selection)	20 years (reckonable commissioned service)

2.442 Navy -Promotion policy followed in the Navy is as follows:

BY TIME SCALE		BY SELECTION	
Lt	Inducted as Commissioned officer	Lt Col	16 years of commissioned service
Capt.	4 years of commissioned Service	Col	20 years of commissioned service
Major	10 year of commissioned Service	Brigadier	28 years of commissioned Service
Lt Col.	20 years of commissioned Service	Maj Gen	32 years of Commissioned Service
		Lt Gen	35 years of commissioned Service
		General	No restrictions

Fig 2.44 2 'Time Scale' and 'Selection' Promotion in Indian Navy

2.443 Air Force – After successful completion of training the candidates passout in the rank of Flying Officer and become entitled to the pay and allowances of the rank. Air force offers good career prospects though it varies from branch to branch. There are two types of promotions in the IAF, i.e. grant of higher acting rank and substantive rank. Each higher rank carries with it extra emolument. Depending on the number of vacancies, one has a good number of chances to get promotion to the higher acting rank. Time Scale promotion to the rank of Squadron Leader and Wing Commander is granted after successful completion of certain period of service. Promotion to higher rank from Wing Commander and above is by selection, carried out by duly constituted promotion boards. Promising Officers have good chances of higher promotion.

2.5 Eligibility Conditions for Recruitment into the Armed Forces

Figure-2.5 Chart Showing Eligibility Conditions For Grant of Permanent and Short Service Commission in All Branches of Indian Army, Indian Navy and Indian Air Force

BY SELECTION	
Lt Cdr to Cdr	2-8 years seniority as Lieut Cdr
Cdr to Capt	4 years seniority as Cdr
Capt to Rear Admiral and above	No service restriction

2.51 Army and Navy Commission

Branch/Type of entry	Unmarried men/women Age limit (yr.)	Educational eligibility	For detailed information
Executive Branch PRMANENT COMMISSION			
• Cadet Entry(NDA)	Men 16½-19	10+2 or equivalent with Physics & Maths	Refer to advertisement given in Employment News and regional newspapers
• Cadet Entry (10+2) (Executive) Naval Academy, Goa (Through NDA Exam)	Men 16½-19	10+2 or equivalent with Physics & Maths	
• Graduate special Entry, Naval Academy, Goa (Through CDSE)	Men 19-22	B.Sc (Physics & Maths) or BE	
• NCC Special Entry, Naval Academy, Goa	Men 19-22	B.Sc (Physics & Maths or BE with Naval Wing Senior Division NCC 'C' certificate	Director General NCC West Block IV, R.K Puram New Delhi 110022
• Direct Entry Naval Armament Inspection Cadre	Men 19½-25	Degree in Electronics/Elect/Mech Engg or Post Graduate Degree in Electronics or Physics	Format given in Employment News and regional newspapers advertising the entry
• Direct Entry Law Cadre	Men 22-27	A Degree in Law qualifying for enrolment as an Advocate under the Advocates Act, 1961 with minimum 55% marks	
SHORT SERVICE			

COMMISSION <ul style="list-style-type: none"> • Direct Entry Law Cadre • Direct Entry Logistic Cadre • Direct Entry ATC (Air Traffic Control) 	Men & Women 22-27 Men & Women 19½-25 Men & Women 19½-25	A Degree in Law qualifying for enrolment as an Advocate under the Advocate Act, 1961 with minimum 55% marks BA (Economics) II Div or B.Com II Div or Graduation in any subject with Degree/Diploma in Material/Financial Management. B.Sc II Div with minimum 50% marks with Physics & Maths	Advertised in Newspapers and Employment News twice a year depending on vacancies
Education Branch PERMANENT COMMISSION <ul style="list-style-type: none"> • Direct Entry 	Men 21-25	A Second Division Master's Degree in <ul style="list-style-type: none"> • Physics (with Maths in B.Sc) or • Maths (with Physics 	Look for advertisement given in Employment News and regional newspaper

<p>SHORT SERVICE COMMISSION</p> <ul style="list-style-type: none"> • Direct Entry <p>Engineering Branch (Marine Engineers)</p> <p>PERMANENT COMMISSION</p> <ul style="list-style-type: none"> • Cadet Entry (NDA) • 10+2 (Tech) • Direct Entry* • University Entry 	<p>Men & Women 21-25</p> <p>Men 16½-19</p> <p>Men 16½-19</p> <p>Men 19½-25</p> <p>Men 18½-23½ (Pre-final) 19-24 (Final)</p>	<p>in B.Sc)</p> <ul style="list-style-type: none"> • Chemistry (with Physics and Maths) in B.Sc. • Computer Application/Computer science (with either/Physics or Maths at Graduation level) or • Humanities (English/Economics/History/Political Science) or An Engineering Degree in Mechanical/Electrical/Computer Science/Technology <p>Same as above</p> <p>10+2 or equivalent with Physics & Maths</p> <p>10+2 or equivalent with Physics, Chemistry & Maths (Minimum 70% marks in aggregate of PCM, minimum 50% marks in English either in 10th or 12th class)</p> <p>Degree in Marine/Mech./Aeronautical/Control/Metallurgical/Production Engineering or equivalent qualification in Mech Engg recognized by the Institution of Engineers (India) as exemption from section 'A' & 'B' or their Associate Membership Exam</p> <p>Pre-final/Final Year students in degree course mentioned at (*) above</p>	<p>Look advertisement given in Employment News and Regional newspaper</p>
---	---	---	---

<p>SHORT SERVICE COMMISSION</p> <ul style="list-style-type: none"> • Direct Entry • University Entry 	<p>Men 19½-25</p> <p>Men 18½-23½ (Pre-final) 19-24 (Final)</p>	<p>Degree in courses mentioned at (c) above.</p> <p>Pre-final/Final year students in degree course mentioned at (*) above</p>	<p>Look for advertisement given in Employment News and Regional Newspapers, Training & Vocational officer of the College or write to Directorate of Manpower & Recruitment, Naval Headquarters, New Delhi 110011</p>
<p>Engineering (Naval Architects) PERMANENT COMMISSION</p> <ul style="list-style-type: none"> • 10+2 (Tech) Cadet Entry • Direct Entry 	<p>Men 16½-19</p> <p>Men 21-25</p>	<p>10+2 or equivalent with Physics, Chemistry & Maths (Minimum 70% marks in aggregate of PCM, minimum 50% marks in English either in 10th or 12th class) A second Division Degree in Naval Architecture/Mech/Aeronautical/Civil/Metallurgical Engg.</p>	<p>Look for advertisement given in Employment News and regional newspaper</p>
<p>Electrical Branch PERMANENT COMMISSION</p>	<p>Men 16½-19</p>	<p>10+2 or equivalent with Physics & Maths</p>	<p>Look for advertisement given Employment</p>

<ul style="list-style-type: none"> • Cadet Entry (NDA) • 10+2 (Tech) Cadet Entry • Direct Entry • University Entry 	Men 16½-19	10+2 or equivalent with Physics, Chemistry & Maths (Minimum 70% marks in aggregate of PCM, minimum 50% marks in English either in 10 th or 12 th class)	News and regional newspaper
	Men 19½-25	Degree in Elect/Electronics/telecommunication Engg or any other qualification in the above subjects recognized by the Institution of Telecommunication Engineers (India) as equivalent to a degree course	
	Men 18½-23½ (Pre-final) 19-24 (Final)	Pre-final/Final year students in degree course mentioned at (*) above	
<p>SHORT SERVICE COMMISSION</p> <ul style="list-style-type: none"> • Direct Entry • University Entry 	Men 19½-25 18½-23½ (Pre-final) 19-24 (Final)	Degree in courses mentioned at (*) above Pre-final/Final year students in degree course mentioned at (*) above	

Air Force (Commission)

Branch/type of entry/Month of commencement of course each yr.	Sex and Age limit	Educational eligibility/Mode of selection	Application	Training & Prospects
<ul style="list-style-type: none"> National Defence Academy Flying Branch Jan & July 	16½-19yr (Unmarried) Male only	<ul style="list-style-type: none"> 12th Class of 10+2 System of education NDA written Exam by SSB Interview for those who pass in written Exam 	Apply to UPSC in response to their advertisement in April/Nov. each year in news papers and Employment News	Selected cadets are trained for 3 years in NDA and awarded BA/BSc degree followed by 52 weeks training in flying at Air Force Academy/BFTS
Direct Entry <ul style="list-style-type: none"> Combined Defence Services Exam. (CDSE) flying Branch Jun & July 	19-23yr. (Unmarried) Male only	<ul style="list-style-type: none"> Graduation with Physics and Maths at 10+2 level Written examination conducted by UPSC followed by SSB interview for those who pass in written Exam 	Apply to UPSC in response to their advertisement in April/Nov each year in newspaper	Selected candidates under go 22 weeks pre-flight training at Begumpet followed by 52 weeks training at AFA/BFTS
<ul style="list-style-type: none"> Through NCC (Air Wing) Flying Branch 	19-23yr (Unmarried) Male only	<ul style="list-style-type: none"> Graduation with Physics and Maths at 10+2 and NCC 'C' Air Wing Certificate within 24 months of leaving NCC No written Exam Only AFSB interview 	Refer incentives to NCC Cadets in this Chapter	Selected candidates go for direct training to AFA/BFTS
<ul style="list-style-type: none"> Women Candidates (Short Service Commission) Helicopter & Transport pilots only 	19-23yr (Unmarried) Male or Female or widows of service Personnel without any child	<ul style="list-style-type: none"> Graduation with Maths & Physics at 10+2 level Merit in SSB Interview for selected candidates 	Apply to Air Hqs when applications are called for through news papers and Employment News	Selected candidates are trained at Air Force Academy/BFTS

<ul style="list-style-type: none"> • University Entry scheme Technical/ Engineering • July 	18-24yrs 18-24 Years	<ul style="list-style-type: none"> • Pre-final/Final year in Engineering degree course in Electrical/ Mechanical Allied branch • Selection by AFSSB interview. 	Applications are called once a year through news papers and Employment news	Technical graduates are trained as per requirements of services at various training establishments.
<ul style="list-style-type: none"> • Direct Entry Scheme Technical/ Engineering • June & Oct. 	18-28yrs PC to Men. Short service commission to women.	<ul style="list-style-type: none"> • Degree in Mechanical/ Electrical/ Allied subjects Aeronautical Engineering (Electr.)- PC & SSC • Engineering Degree in Electronics/ Telecommunications/ Electrical Communications/ Electronics & Communication/ Instrumentation/ Computer Science & Engineering or a combination of those subjects, or • B.Tech in Radio Physics & Electronics of Calcutta University, or • A Degree in Science with Physics, Mathematics and Chemistry and must have passed 	-do-	Technical Graduates are trained as per requirements of services at various training establishments.

<p>Direct entry scheme Tech/Engineering</p> <ul style="list-style-type: none"> • Jun & Oct 	<p>18-28 Years PC to Main And Short Services Commission to Women</p>	<p>one of the following:</p> <ul style="list-style-type: none"> • Section 'A' and 'B' or AMIE (India) in Electrical/ Electronics/ Telecommunication • Graduate Membership examination of IETE with following subjects of Section 'A' Mathematics, Applied Electronics & Circuits, Principles of Communication Engineering and Transmission Line & Network in addition to full subject of Section 'B' by actual studies • Section 'A' and 'B' exams of Aeronautical Society of India by actual studies in Avionics/ Communication <p>Must possess a minimum of two years of practical experience in Electronics discipline in recognized servicing/</p>	<p>Applications are called once a year through News paper and Employment News.</p>	<p>Technical Graduates are trained as per requirements of services at various training establishments.</p>
---	--	---	--	--

<p>Direct entry scheme Tech/Engineering</p> <ul style="list-style-type: none"> • Jun & Oct 	<p>18-28 Years PC to Main And Short Services Commission to Women</p>	<p>manufacturing organization Aeronautical Engineering (Mechanical) PC & SSC</p> <ul style="list-style-type: none"> • Degree in Aeronautical/mechanical Engineering, or • A Degree in Science with Physics, Mathematics and Chemistry and must have passed one of the following: • Section 'A' and 'B' of AMIE (I) with Mechanical/Aeronautical subjects, or • Associate Membership Examination Part II and III of the Aeronautical Society of India with Group I (Design & Production) or Group II (Maintenance, Repair & Overhaul) by actual studies. <p>Must possess a minimum of two years practical experience in Mechanical discipline in a recognized servicing/manufacturing organization.</p> <ul style="list-style-type: none"> • Selection by Air 	<p>Applications are called once a year through News paper and Employment News.</p>	<p>Technical Graduates are trained as per requirements of services at various training establishments</p>
---	--	---	--	---

Direct Entry Scheme	18-28 Years	Force Selection Board Interviews held at SSB Dehradun, Varanasi, Mysore They also undergo Psychological Test and Interview	Applications are invited once a year.	Training at various establishments.
---------------------	-------------	--	---------------------------------------	-------------------------------------

Navy (Commissions)

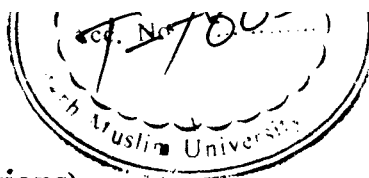
Branch/Type of entry	Unmarried men/women Age limit (yr.)	Educational eligibility	For detailed information
Executive Branch PRMANENT COMMISSION			
• Cadet Entry(NDA)	Men 16½-19	10+2 or equivalent with Physics & Maths	Look for advertisement given in Employment News and regional newspapers.
• Cadet Entry (10+2) (Executive) Naval Academy, Goa (Through NDA Exam)	Men 16½-19	10+2 or equivalent with Physics & Maths	
• Graduate special Entry, Naval Academy, Goa (Through CDSE)	Men 19-22	B.Sc (Physics & Maths) or BE	
• NCC Special Entry, Naval Academy, Goa	Men 19-22	B.Sc (Physics & Maths or BE with Naval Wing Senior Division NCC 'C' certificate	Director General NCC West Block IV, R.K Puram New Delhi 110022
• Direct Entry Naval Armament Inspection Cadre	Men 19½-25	Degree in Electronics/Elect/Mech Engg or Post Graduate Degree in Electronics or Physics	Format given in Employment News and regional newspapers advertising the entry.
• Direct Entry Law Cadre	Men 22-27	A Degree in Law qualifying for enrolment as an Advocate under the Advocates Act, 1961 with minimum 55% marks.	
SHORT SERVICE COMMISSION			
• Direct Entry Law Cadre	Men & Women 22-27	A Degree in Law qualifying for enrolment as an Advocate under the Advocate Act, 1961	Advertised in Newspapers and Employment News twice a year

<ul style="list-style-type: none"> • Direct Entry Logistic Cadre 	Men & Women 19½-25	with minimum 55% marks. BA (Economics) II Div or B.Com II Div or Graduation in any subject with Degree/Diploma in Material/Financial Management.	depending on vacancies.
<ul style="list-style-type: none"> • Direct Entry ATC (Air Traffic Control) 	Men & Women 19½-25	B.Sc II Div with minimum 50% marks with Physics & Maths	
Education Branch PERMANENT COMMISSION <ul style="list-style-type: none"> • Direct Entry 	Men 21-25	A Second Division Master's Degree in <ul style="list-style-type: none"> • Physics (with Maths in B.Sc) or • Maths (with Physics in B.Sc) or • Chemistry (with Physics & Maths) in B.Sc • Computer Application/Computer science (with either/Physics or Maths at Graduation level) or • Humanities (English/Economics/History/Political Science) or An Engineering Degree in Mechanical/Electrical/Computer Science/Technology 	Look for advertisement given in Employment News and regional newspaper.
SHORT SERVICE COMMISSION <ul style="list-style-type: none"> • Direct Entry 	Men & Women 21-25	Same as above	
Engineering Branch			

<p>(Marine Engineers) PERMANENT COMMISSION</p> <ul style="list-style-type: none"> • Cadet Entry (NDA) • 10+2 (Tech) • Direct Entry* • University Entry 	<p>Men 16½-19</p> <p>Men 16½-19</p> <p>Men 19½-25</p> <p>Men 18½-23½ (Pre-final) 19-24 (Final)</p>	<p>10+2 or equivalent with Physics & Maths</p> <p>10+2 or equivalent with Physics, Chemistry & Maths (Minimum 70% marks in aggregate of PCM, minimum 50% marks in English either in 10th or 12th class)</p> <p>Degree in Marine/Mech./Aeronauti- cal/Control/Metallurgica- l/Production Engineerin- g or equivalent qualification in Mech Engg recognized by the Institution of Engineers (India) as exemption from section 'A' & 'B' or their Associate Membership Exam</p> <p>Pre-final/Final Year students in degree course mentioned at (*) above.</p>	<p>Look advertisement given in Employment News and Regional newspaper.</p>
<p>SHORT SERVICE COMMISSION</p> <ul style="list-style-type: none"> • Direct Entry • University Entry 	<p>Men 19½-25</p> <p>Men 18½-23½ (Pre-final)</p>	<p>Degree in courses mentioned at (c) above.</p> <p>Pre-final/Final year students in degree course mentioned at (*)</p>	<p>Look for advertisement given in Employment News and Regional Newspapers, Training & Vocational officer of the College or write to Directorate of Manpower & Recruitment, Naval</p>

	19-24 (Final)	above	Headquarters, New Delhi 110011.
Engineering (Naval Architects) PERMANENT COMMISSION <ul style="list-style-type: none"> • 10+2 (Tech) Cadet Entry • Direct Entry 	Men 16½-19 Men 21-25	10+2 or equivalent with Physics, Chemistry & Maths (Minimum 70% marks in aggregate of PCM, minimum 50% marks in English either in 10 th or 12 th class) A second Division Degree in Naval Architecture/Mech/Aero nautical/Civil/Metallurgi cal Engg.	Look for advertisement given in Employment News and regional newspaper.
Electrical Branch PERMANENT COMMISSION <ul style="list-style-type: none"> • Cadet Entry (NDA) • 10+2 (Tech) Cadet Entry 	Men 16½-19 Men 16½-19 Men 19½-25	10+2 or equivalent with Physics & Maths 10+2 or equivalent with Physics, Chemistry & Maths (Minimum 70% marks in aggregate of PCM, minimum 50% marks in English either in 10 th or 12 th class) Degree in Elect/Electronics/teleco mmunication Engg or any other qualification in the above subjects recognized by the Institution of	Look for advertisement given in Employment News and regional newspaper.

<ul style="list-style-type: none"> • Direct Entry • University Entry 	Men 18½-23½ (Pre-final) 19-24 (Final)	Telecommunication Engineers (India) as equivalent to a degree course. Pre-final/Final year students in degree course mentioned at (*) above.	
SHORT SERVICE COMMISSION <ul style="list-style-type: none"> • Direct Entry • University Entry 	Men 19½-25 18½-23½ (Pre-final) 19-24 (Final)	Degree in courses mentioned at (*) above Pre-final/Final year students in degree course mentioned at (*) above.	

**Air Force (Commissions)**

Branch/Type of entry/Month of commencement of course each yr.	Sex and Age limit	Educational eligibility/Mode of selection	Application	Training and Prospects
<ul style="list-style-type: none"> National Defence Academy Flying Branch Jan & Jul 	16½-19yr (unmarried) Male only	<ul style="list-style-type: none"> 12th Class of 10+2 System of education NDA written Exam by UPSC followed by SSB Interview for those who pass in written Exam 	Apply to UPSC in response to their advertisement in April/Nov. each year in news papers and Employment News.	Selected cadets are trained for 3 years in NDA and awarded BA/B.Sc degree followed by 53 weeks training in flying in Air Force academy/BFTS.
Direct Entry <ul style="list-style-type: none"> Combined Defence Services Exam. (CDSE) Flying Branch Jan & July 	19-23yr. (unmarried) Male only	<ul style="list-style-type: none"> Graduate with Physics and Maths at 10+2 level Written examination conducted by UPSC followed by SSB Interview for those who pass in written Exam 	Apply to UPSC in respect to their advertisement in April/Nov. each year in newspaper.	Selected candidates undergo 22 weeks preflight training at Begumpet followed by 52 weeks training at AFA/BFTS
<ul style="list-style-type: none"> Through NCC (Air wing) Flying Branch 	19-23yr (unmarried) Male only	<ul style="list-style-type: none"> Graduation with Physics and Maths at 10+2 and NCC "C" Air Wing certificate with 24 month of leaving NCC No written Exam Only AFSB interview 	Refer incentives to NCC Cadets in this Chapter.	Selected candidates go for direct training to AFA/BFTS.
<ul style="list-style-type: none"> Women Candidates (Short service Commission) Helicopter & Transport pilots only 	19-23yr (Unmarried) Male or Female or widows of service personnel without any child	<ul style="list-style-type: none"> Graduation with Maths & Physics at 10+2 level Merit in SSB Interview for selected candidates 	Apply to Air Hqs when applications are called for through news papers and Employment News	Selected candidates are trained at Air Force Academy/BFTS
<ul style="list-style-type: none"> University 	18-24yrs	<ul style="list-style-type: none"> Pre-final/ Final year in 	Applications	Technical

Entry scheme Technical/Engineering <ul style="list-style-type: none"> July NDA Flying Branch <ul style="list-style-type: none"> Jan & July 	16 ½ - 19 (Unmarried males only)	<p>Engineering degree course in Electrical/ Mechanical Allied branch.</p> <ul style="list-style-type: none"> 12th Class or 10+2 system of education. NDA written Exam by UPSC followed by SSB Interview for those who pass in written Exam . 	<p>are called once a year through news papers Employment news.</p> <p>Apply to UPSC in response to advertisement in newspapers and Employment news.</p>	<p>graduates are trained as per requirements of service at various training establishments. Selected cadets are trained for 3 years in NDA and awarded BA/BSc degree followed by 53 weeks training in flying at Air Force Academy.</p>
<ul style="list-style-type: none"> Direct Entry Scheme Technical/Engineering Jun & Oct. 	18-28 yrs PC to Men short service commission to women	<ul style="list-style-type: none"> Degree in Mechanical/Electrical /Allied subjects Aeronautical engineering (Electr.) – PC & SSC Engineering Degree in Electronics/Telecommunications/Electrical Communications/ Electronics & Communication/Instruction/Computer Science & Engineering or a combination or those subjects, or B./Tech in Radio Physics & Electronics of Calcutta University, or A Degree in Science with Physics, Mathematics and Chemistry and must have passed one of the following: Section 'A' and 'B' of AMIE (India) in Electrical/ Electronics/ 	Apply in response to advertisement in newspapers and Employment news.	<p>44 weeks training Air Force Technical College, Bangalore. Provisional Short Service Commission for candidates who apply for Short Service. Females get only Short Service Commission. Study leave for ME/M.Tech & Ph.D in India and abroad.</p>

<ul style="list-style-type: none"> • University scheme Tech/Engineering • Jul 	18-24 Years	<p>Telecommunication.</p> <ul style="list-style-type: none"> • Graduate Membership examination of IETE with following subjects of section 'A' Mathematics, Applied Electronics & Circuits, Principles of communication Engineering and Transmission Line & Network, in addition to full subject of Section 'B' by actual studies. • Section 'A' and 'B' exams of Aeronautical Society of India by actual studies in Avionics/ Communications. <p>Must possess a minimum of two years of practical experience in Electronics discipline in a recognized serving/ manufacturing organization</p> <p>Aeronautical Engineering (Mechanical) PC & SSC.</p> <ul style="list-style-type: none"> • Degree in Aeronautical/ Mechanical Engineering, or • A Degree in Science with Physics, Mathematics and Chemistry and must have passed one of the following: • Section 'A' and 'B' of AMIE (I) with Mechanical/ Aeronautical subjects, or • Associate Membership Examination Part II and III of the Aeronautical Society of India with Group I (Design & Production) or Group II 	Applications are called once a year through News Paper and Employment News.	Technical graduates are trained as per requirements of service at Air Force Academy/BFTS.
---	-------------	--	---	---

<ul style="list-style-type: none"> University scheme Tech/Engineering Jul 	18-24 Years	<p>(Maintenance, Repair & Overhaul) by actual studies.</p> <p>Must possess a minimum of two years practical experience in Mechanical discipline in recognized servicing/ manufacturing organization.</p> <ul style="list-style-type: none"> Selection by Air Force Selection Board, Interviews held at SSB Dehradun, Varanasi, Mysore. They also undergo Psychological test and Interview. 	Applications are called once a year through News Paper and Employment News.	Technical graduates are trained as per requirements of service at Air Force Academy/BFTS.
---	-------------	---	---	---

Branch/Type of entry/ Month of commencement of course each yr.	Sex and Age limit	Educational Eligibility/ Mode of Selection	Training & Prospects
Administrative	20-23yrs 20-25yrs 20-26yrs	I Class Graduate I/II Class PG/ Graduate LLB I/ II Class	<ul style="list-style-type: none"> • Candidates recommended by Air Headquarters after short listing are required to appear before the Air Force selection Board and undergo tests in leadership qualities and physical fitness. • No compensation is paid in respect of any injury sustained as a result of the tests. • The interview is held during August/Sept. • Selected candidates would be required to undergo medical fitness tests at IAM, Bangalore/CME Delhi. Candidates are then detailed for training in order of merit based on the marks secured at the Selection Board and subject to medical fitness. • Successful candidates undergo 52 weeks training at Air Force Academy. Short Service Male officers have provision to opt for Permanent Commission. It depends upon vacancy and suitability of the officer. Career prospects: Short Service Commission Officers are entitled for promotion under conditions applicable to Permanent Commissioned Officers of Non-Technical Ground Duties Branches.
Accounts	20-23yrs 20-25yrs 20-27yrs	I Class B.Com I/ II Class M.Com CA/ICFAI	
Logistics	20-23yrs 20-25yrs	I Class Graduate I/ II Class PG Graduate	
Meteorology <ul style="list-style-type: none"> • Usually in January and July but varies with number of vacancies. 	20-25yrs	I/ II Class M.Sc in Physics/ Applied Physics / Meteorology/ Geophysics with Meteorology/ Applied Mathematics/ Oceanography with specialisation in Meteorology/M.,Tech Atmospheric Science from IIT Delhi <ul style="list-style-type: none"> • Merit in SSB interview. Female candidates get short service Commission for 10 years 	
SSC for Adm (ATC/FC) Fighter Controller & Air Traffic Controller	20-23yrs 20-25yrs	I Class Graduate/II Class Post Graduate	

The above information is subject to change. The training of officers selected through the above entries normally commences in the month of January/August every year. Advertisements calling for applications from eligible candidates are published in Employment News and important Newspapers in Apr./May and Sept to Nov. The selection procedure includes UPSC Examination (for NDA,10+2 (Ex) and GS Entry), interview at Services Selection Board and medical examination.

Further information can also be obtained from: Directorate of Manpower Planning and Recruitment of Army/Naval/Air Headquarters, New Delhi 110011.

2.7 Entry for Women in the Army/Navy/Air Force (Short Service Commission)

Women have always played an active role, though indirectly in maintaining the high morale of the Armed Forces by way of participation in various welfare and social activities of various branches of the Armed Forces. In view of its futuristic, progressive and modern approach, women are now exhorted to play an active, direct role in shouldering the duties also. The three services have been recruiting women candidates for some selected branches for short service commission which is of 5 to 10 years duration. The following charts give details of the branches for entry and the requirements for getting an entry.

Fig 2.7- Chart Showing Commission for Women (Army)

Commission for Women in the Army (Short Service)

Branch	Age	Educational qualification	Selection	For application contact
Army Service Corps (ASC) (Food scientists)	21-27	M.Sc in Organic Chemistry/ Biochem/ Micro Biology/ Biochem of foods.	Initial shortlisting of applications is done by Additional Directorate General (Recruiting) Army HQ. Short listed candidates will be tested at Services Selection Board by Psychologist, Group Testing Officer and Interviewing Officer.	Additional Directorate General of Recruiting (Women Entry Section) West Block III, R.K Puram N Delhi 110066.
Army Ordnance Corps (AOC)	19-25	Graduates (minimum 60%) in any subject with Dip in comp.Sc/Material Management/ or with Commerce/ Economics Science graduates with any subject with Dip in Comp.Sc/ Material Management/ or with Physics/ Chemistry	Same as above	Same as above
Army Education Corps (AEC)	21-27	Post Graduate Degree	Same as above	Same as above
Army Engineers	21-27	BE.Civil/ Electrical/ Mechanical/ Architecture	Same as above	Same as above
Signals	19-25	BE Telecommunication/ Telecommunication and Electronics/ Computer Science/ Computer Engineering	Same as above	Same as above
EME	19-25	M.Sc (Computer Science) MCA/BE (Computer Sc & Engg) BE (Electronics and Comp.Sc) BE (Mech)/ BE (Electrical)/ BE (Automobile)	Same as above	Same as above

Intelligence Corps (Linguistic Officer)	19-25	Graduate with Interpretership level qualification in any of the following languages Chinese, Sinhalese, Burmese, Pushto, Tibetan	Same as above	Same as above
JAG	21-27	LLB (3 yrs course) after graduation or 5 years composite course after 10+2	Same as above	Same as above

2.71 Physical Standards Required- The following are the minimum physical standards:

2.711 Height and Weight- The minimum acceptable height and weight for women in 142cm and 36 Kg respectively.

2.712 Vision- Visual acuity (min) Distant Vision (corrected) Better eye 6/6 worse eye 6/18, Myopia of not more than minus 5.5 D including astigmatism. To be passed as fit, a candidate must be in good physical and mental health and free from any disability likely to interfere with the efficient performance of duty.

2.713 Training - Approximately six months training at OTA, Chennai is given, after successful completion of which candidates are granted commission in the rank of Lt. The final allocation of Arms/Services is made before the candidates pass out of OTA.

Fig 2.713- Chart Showing Commission for Women In Indian Air Force

Commission for Women in the Air Force (Short Service)

Branch	Age	Educational requirements	Selection
Flying Branch (Transport / Helicopter Pilots and Navigators) (Commission for 10 years).	19-23yrs, 25yrs for CPL* holders (unmarried or widows of service personnel killed on duty but without any child).	Graduate with Physics and Maths upto 10+2 level.	Applications are directly called for by Air HQ followed by interview. Selection is based on merit in SSB and interview.
Technical Branches (commission for 6 years).	19-28yrs (unmarried or widows of service personnel killed on duty but without any child).	Same as for male candidates (refer to table).	Based on merit in SSB and Interview.
Ground Duty Branch (Administrative, Logistics, Accounts, Education & Meteorology).	20-23yrs (unmarried) 20-25yrs ;27yrs for higher qualification.	First Class graduates, Post graduate Ist/2 nd class.	-Do-

2.714 Physical requirements – Same as Army. For flying branch minimum height 162.5 Cms, leg length 99-120 cm. should not be colour/night blind or wearing glasses.

2.72 Commission for Women in Navy (Short Service)

For entry, age requirements, educational qualification and selection refer to Table (Commission in Army, Men/ Women section)

2.721 Physical standards – Relaxation for female candidates in addition to medical requirements mentioned in general. *Height and Weight* – Minimum acceptable height 148 cms, weight

38.6 Kgs. The correlated weight should not, however, vary from the average by more than 10%. *Vision-* 6/36,6/60 correctable to 6/6 (in each eye with glasses).

2.722 Selection and training –Candidates recommended by Naval Headquarters after short listing are required to appear before the Naval Selection Board (Bangalore and Bhopal) and undergo tests in leadership qualities and physical fitness. Initial training is conducted at Naval Academy (NAVAC) situated in Goa, followed by training at other centres like Mumbai, Cochin and Visakhapatnam.

2.8 Entry in Army, Navy, Air Force after 10+2

2.81 Naval Engineering College

Navy directly selects candidates for their Engineering College at Lonawala, Pune. Male candidates between the age of 16½ and 19 years who have passed class XII with Maths, Physics and Chemistry and have secured more than 70% marks in PCM and minimum 50% marks in English are eligible to apply. The Naval Engineering College trains the cadets so selected in Naval Architecture, Marine Engineering and Electrical Engineering. The course starts in August, advertisement and details about this selection are published in leading newspapers and Employment news in the month of May/June.

2.82 National Defence Academy

Union Public Service Commission holds a competitive examination twice in a year, in February & September, for a three-year training course commencing in January and July. Candidate taking the examination has to give preference for service he desires to join,

however, option also depends on the rank in merit list. Before indicating their preferences for different courses, the candidates should first decide their preference for the two Academies, viz., National Defence Academy and Naval Academy (Executive Branch). If a candidate opts for National Defence Academy as his first choice, he must first indicate his preference for different wings of National Defence Academy viz., Army, Navy and Air Force followed by his preference for Naval Academy (Executive Branch). Alternatively if a candidate opts for Naval Academy (Executive Branch) as his first choice, he must first indicate his preference for Naval Academy (Executive Branch) as his first choice, followed by his preferences for different wings of National Defence Academy.

2.821 Centres of Examination- Agartala, Ahmedabad, Aizwal, Allahabad, Bangalore, Bareilly, Bhopal, Mumbai, Calcutta, Chandigarh, Cochin, Cuttack, Delhi, Dharwar, Dispur (Guwahati), Gangtok, Hyderabad, Imphal, Itanagar, Jaipur, Jammu, Jorhat, Kavaratti (Lakshadweep), Kohima, Lucknow, Chennai, Madurai, Nagpur, Panaji (Goa), Patna, Port Blair, Raipur, Sambalpur, Shillong, Shimla, Srinagar, Tirupati, Trivandrum, Udaipur and Vishakhapatnam. The centres and the date of holding the examination as mentioned above are liable to be changed at the discretion of the Commission.

2.822 Conditions of Eligibility- The following are the conditions of eligibility:

Nationality- A candidate must be either (i) a citizen of India, or (ii) a subject of Bhutan, or (iii) a subject of Nepal, or (iv) a Tibetan refugee who came over to India before the 1st January, 1962 with the intention of permanently settling in India, or (v)

a person of Indian origin who has migrated from Pakistan, Burma, Sri Lanka, the East African countries of Kenya, Uganda, Republic of Tanzania (formerly Tanganyika and Zanzibar), Zambia, Malawi, Zaire and Ethiopia and Vietnam with the intention of permanently settling in India. Provided that a candidate belonging to categories (ii), (iii), (iv) and (v) above shall be a person in whose favour a certificate of eligibility has been issued by the Government of India. Certificate of eligibility is not, however, necessary in the case of candidates who are Gorkha subjects of Nepal.

2.823 Age Limit, Sex and Marital Status- Only unmarried male candidates, age between 16½ and 19 years are eligible. The date of birth accepted by the Commission is that entered in the Matriculation or Secondary School Leaving Certificate in a certificate recognized by an Indian university as equivalent to Matriculation maintained by a university, which extract must be certified by the proper authority of the university or in the Higher Secondary or an equivalent examination certificate. These certificates are required to be submitted only after the declaration of the result of the written part of the examination. Candidates must undertake not to marry until they complete their full training. A candidate who marries subsequent to the date of his application, though successful at this or any subsequent examination will not be selected for training. A candidate who marries during training shall be discharged and will be liable to refund all expenditure incurred on him by the Government.

2.824 Educational qualifications –These are follows-

2.835 For Army Wing of National Defence Academy- 12th Class pass of the 10+2 pattern of School Education or equivalent examination conducted by a State Education Board or a University.

2.836 For Air Force and Naval Wings of National Defence Academy and for the 10+2 (Executive Branch) course at the Naval Academy- 12th Class Pass of the 10+2 pattern or School Education or equivalent with Physics and Mathematics conducted by a State Education Board or a University. Candidates who are appearing in the 12th Class under the 10+2 pattern of School Education or equivalent examination can also apply. Candidates who qualify in the SSB interview will be required to submit Matriculation and/or 10+2 or equivalent certificate in original to Army HQ Rtg (NDA Entry) West Block III, R.K.Puram New Delhi 110066 and for Naval Academy Candidates to Naval Headquarters, R&R Section, 206 'C' Wing, Sena Bhawan, New Delhi 110011.

2.827 Scheme of the Examination – The subject of the written examination, the time allowed and the maximum marks allotted to each subject are as follows: -

Fig 2.82- Scheme of Examination for NDA

Subject	Code	Duration	Max Mark
Mathematics	01	2-2½ hours	300
General Ability Test	02	2-2½ hours	600
		Total	900

The papers in all the subjects consist of objective type questions only. The question papers (test Booklets) are set in English only.

2.828 Intelligence and Personality Test- In addition to the interview, the candidates are put through intelligence tests both verbal and non-verbal designed to assess their basic intelligence. They are also put to group test, such as group discussions, group-planning, outdoor group tasks and asked to give brief lectures on specified subjects. All these tests are intended to judge the mental calibre of a candidate in broad terms. This is really an assessment of both his intellectual qualities and also his social traits and interest in current affairs. The maximum marks obtainable at these tests are 900.

2.9 Graduates and Postgraduates Entry into Armed Forces

2.91 Combined Defence Services Examination (CDSE)

Union Public Service Commission through its notification in leading newspapers and Employment news, in the months of April and October, conducts an entrance examination for entry into the officer cadre of Army, Navy and Air Force. Candidates qualifying in written examination have to appear before a service selection board for interview. Those opting for Air force have to undergo Pilot Aptitude test. Those who come on the merit list undergo medical examination and after selection are sent to following training establishments according to choice given by the candidates and their merit list ranking.

- Indian Military Academy (IMA), Dehradun
- Naval Academy, Goa
- Air Force Academy, Begumpet, Hyderabad
- Officers Training Academy, Madras

Those joining in any of the first three establishments get permanent commission. Candidates selected for OTA, Chennai are given short service commission.

Applicant is required to specify clearly the services for which he wishes to be considered in the order of his preference. He is also advised to indicate as many preferences as he wishes to, subject of fulfilling the conditions of eligibility, so that having regard to his rank in the order of merit due consideration can be given to his preferences when making appointment.

If an applicant is competing for OTA as well as for any other Course (s), viz., IMA, Naval Academy and Air Force Academy, the OTA will always be his last choice. In such cases, the applicant must, therefore, give OTA as his last choice, as otherwise OTA will be deemed to be the last choice even if it is given a higher preference by the applicant. OTA can be the first preference if it is the one and only choice. Applicants are considered for appointment to those courses only for which they exercise their preference and for no other course.

The Commission entertains no request for addition/alteration in the preference indicated by a candidate in his application. The Commission entertains no change of choice in his application. Second choice comes for consideration only when Services HQ does not offer the first choice to the candidate. When first choice is offered and a candidate declines the same, his candidature is cancelled for all other choices for regular commission.

2.92 Incentives to NCC Cadets- The following are the incentives to the NCC cadets:

2.921 Army- 50 vacancies in every regular course of IMA are reserved for National Cadet Corps 'C' certificate holders who have passed UPSC Examination and have also been declared successful by the Service Selection Board.

2.9211 Short Service Commission (NT) – OTA, Chennai.

Graduates with 50% marks, NCC 'C' Certificate with 'B' grade and serving for 2 years from the date of receipt of application can appear directly for SSB interview for SSC at OTA, Chennai.

2.922 Navy- 6 vacancies per course for grant of commission in the Navy are reserved for selection of National Cadet Corps cadets as Special Entry Cadets, provided they are in possession of 'C' certificate of Naval Wing and are declared fit by the Naval Selection Board. Such cadets are exempted from appearing in the UPSC examination.

2.923 Air Force – 10 vacancies per course are reserved for National Cadet Corps Air Wing cadets holding NCC 'C' certificate of Air wing. Two courses are held every year. The cadets for Pre-Flying Course do not have to undergo UPSC Examination.

2.9231 Other Branches of Air Force – 10 vacancies per course are reserved for National Cadet Corps Air wing cadets holding NCC 'C' certificate of Air Wing for commission into various branches of the IFA (except Flying Branch Pilot). They have, however, to clear the UPSC examination and service Selection Board as in the case of general candidates.

To be eligible to compete for reserved vacancies the candidates should have served for not less than two academic years in the Senior Division Army Wing and three academic years in the Senior Division Air wing/Naval Wing of National Cadet Corps and should not have been discharged from the NCC for more than 24 months for IMA/Naval Academy/ Air Force Academy Courses on the last date of receipt of applications in the Commission's Office.

Table 2.2934 Addresses for Information on Recruitment

For Recruitment in to Army (IMA/OTA)	For Recruitment into Navy (NAVC)	For Recruitment into Air Force (AFA)
Additional Director General of Recruitment, CDSE Entry, Army Headquarters, New Delhi-110066	Naval Headquarter, R&R Sena Bhawan, Defence Headquarters, Post New Delhi-110011	PO 3 (A), Air Headquarters, J Block, Room No. 17, Opposite Vayu Bhawan Motilal Nehru Marg, New Delhi-110011

2.93 Educational Qualifications – These are listed as follows: -

2.931 For IMA and Officers' Training Academy – Degree of a recognized university or equivalent.

2.932 For Naval Academy – B.Sc with Physics & Mathematics or Bachelor of Engineering.

2.933 For Air Force Academy – Degree of a recognized university or equivalent with physics and/or Mathematics as subjects. Candidates who have passed their degree examination with subjects other than physics and/or Mathematics as subjects are also eligible provided they have passed the Higher Secondary Examination (old pattern) or the 11th /12th Standard Examination under the 10+2 pattern of school education or an equivalent examination with mathematics and Physics as subject of Examination.

Graduates with first choice as Army/Navy/Air Force are to submit proof of graduation provisional certificates within two weeks of completion of SSB interview to Army HQ (Rtg. CDSE Entry)/NHQ (R&R Section)/Air HQ-PO-3(A) respectively.

Candidates who are studying in the final year Degree course and have yet to pass the final examination, (b) Interview, intelligence and personality test of such candidates as may be called for the interview at the services selection board centers.

The subjects of the written examination the time allowed and the maximum marks allotted to each subject are as follows: -

Fig 2.91- Scheme of Examination for CDS including OTA

For the admission to IMA, Naval and Air Force Academy

<i>Subject</i>	<i>Duration</i>	<i>Marks</i>
English	2 hrs	100
General Knowledge	2 Hrs	100
Elementary Mathematics	2 Hrs	100

For admission to officers training academy

<i>Subject</i>	<i>Duration</i>	<i>Marks</i>
English	2 Hrs	100
General Knowledge	2 Hrs	100

The maximum marks allotted to the written examination and the interviews are equal for each course, *i.e.*, maximum marks allotted to the written examination and to the interviews are 300, 300, 300 and 200 each for admission to Military Academy, Air Force, Naval Academy and Officers Training Academy.

2.9331 For candidates joining the Air Force Academy -

There are three modes of entry into F(P) Course Viz. CDSE/NCC/Airmen. Candidates who apply for Air Force through more than one source will be tested/interviewed at Air force as well as other arms of services. Common candidate who fails in INS-B/PAB test as an NCC or Airmen candidate be called again through CDS testing for Army/ Navy/OTA only, if it is found that he has applied through CDS Exam also. All papers in all subjects consist of objective type questions. Question Papers are set in English only. In question papers, wherever necessary, questions involving metric system of Weights and Measures are also included. Candidates have to write the papers in their own hand. In no circumstances are they allowed the help of a scribe to write answers for them. The commission has discretion to fix qualifying marks in any or all the subjects of the examination. The candidates are not permitted to use calculator for answering objective type papers.

2.10 Special Tests of Selection

After the UPSC written examination for NDA and CDSE or after the scrutiny and short listing of applicants by the respective headquarters all candidates are put through relevant tests before being sent for medical examination. Here is a description of the selection procedure of the service Selection Board (SSB).

2.101 Personality Tests- These tests are as follows: -

Situation Reaction Test (SRT) – Sixty situations are given and the candidate is required to give reactions on an answer book in 30 minutes.

2.102 Thematic Apperception Test (TAT)- A set of 12 pictures are shown and the candidate is required to write a story in 3 minutes for each word.

2.103 Word Association Test (WAT) – Sixty words are projected and the candidate is required to make a sentence, in 15 seconds for each word.

2.104 Group Tests – Group Test is conducted on batches of 8-10 candidates. The test comprises of indoor and outdoor activities e.g. group planning, group discussion and lectures.

2.105 Interview- This is to test the personality of the candidate. This includes general awareness. Finally the selection board interviews the candidate.

2.106 Pilot Aptitude Battery Tests- Pilots have to undergo a pilot aptitude test which includes Instrument battery test. This test requires annotation of the correct answers in an answer sheet for each problem, which are given in a booklet. Those qualifying in this test have to take the machine test comprising of control velocity and SMA.

2.107 Intelligence Test- Pilot, Engineers and other ground duty applicants also go through the officers' intelligence rating test. This test is designed to find out the basic intelligence level of the candidates. Only those who achieve a minimum acceptable level grade and required to undergo the Personality test which is common to all candidates.

2.108 Engineering Knowledge Test- Engineers take the engineering knowledge test. This is a test of basic knowledge in various fields of engineering. This test has to be cleared before taking the personality test.

2.11 Entry After 10+2 (PCB Group) Into Armed Forces Medical Services

2.111 Medical Corps after 10+2 (Biology Group)

Armed forces Medical College is a prestigious medical college run by the Armed forces for training medical graduates at Pune. 105 boys and 25 girls are selected to serve the armed forces as doctors after their training.

2.1111 Eligibility- candidates should be medically fit as per laid down standards. All selected candidates have to

undergo medical examination before admission to the AFMC. Only unmarried candidates are eligible.

2.1112 Nationality – A citizen of India or a subject of Nepal or Bhutan or a person of Indian origin migrated from Pakistan or any other foreign country with the intention of permanently settling in India can apply. Foreign national of Indian origin may be admitted only after they have acquired Indian citizenship or in respect of whom the Ministry of Home Affairs issues a certificate of eligibility.

2.1113 Educational Qualifications – Candidate must have passed the XII (10+2) standard/pre-professional (medicine) examination or equivalent examination of any recognized Board/University as a regular student in the first attempt with subjects of Physics, Chemistry, Biology and English securing not less than 60 percent of aggregate marks in the three science subjects taken together. He should secure 50 percent marks in each science subjects and not less than 45 percent marks in English. The candidate must have passed an examination in Mathematics at least of the matriculation standard. Candidates are to appear for the test provisionally. Candidates who have passed in Domestic Science, Domestic Arithmetic, and Lower Maths separately or in combination with ordinary (multi purpose) or equivalent examination are not eligible. Candidates who have passed only pre-university/pre-degree (one year course) or pre



professional in Agriculture/Veterinary/ Dental examination are not eligible.

2.1114 Method of Selection – The selection test is held in two parts; written test and an interview. General standard of the entrance examination is that of 10+2 standard.

2.1115 Age – 17 years on 31 December of the year of appearing but must not be the age of 22 years on the date if the academic qualification of candidates is 10+2. A candidate who has passed the B.Sc. examination or will be appearing in final B.Sc. examination must not have attained the age of 24 years on December 31.

2.1116 Reservation For SC/ST – 10 seats are reserved for SC/ST candidates but they must come within the first 500 in the final combined merit list of boys and girls. Based on the performance in the written test, selected candidates are called for interview in the month of June/July at one of the following Centers: Bangalore, Calcutta, Lucknow, New Delhi and Pune.

2.112 Military Nursing Services (MNS)

2.1121 Entry After 10+2

Admission to B.Sc. (Nursing) course of four years duration is conducted at College of Nursing, Armed Forces Medical College, Pune-30.

2.1122 Minimum Educational Qualification – The candidates must have passed XII class (10+2) or an equivalent examination of 12 years duration of a recognized Board/University with Physics, Chemistry and Biology (Botany and Zoology) with not less than 40 percent aggregate marks in all the subjects. Those who have passed the examination as private candidates without attending a College affiliated to any recognized university are not eligible. The candidates appearing in the qualifying examination (10+2) during March/April of the year of applying may not apply.

2.1123 Age Requirements – Candidates should be between 17-25 years of age. Candidates are selected (2 seats are reserved for scheduled caste/scheduled tribes and 1 seat for NCC trained girl candidate). Selected candidates are required to execute an agreement/bond to serve in the Military Nursing Services for a minimum period of 5 years as Permanent Commissioned Officer after successful completion of studies. In addition to free rations, furnished accommodation, uniform allowance, medical treatment and travel concessions, they are paid a stipend per month during the course. Only unmarried female candidates are eligible. Divorcees, widows, or those legally separated and without encumbrances are also considered. Applicants should be medically fit.

2.1124 Selection – Written objective type examination are held at 17 centers. Required numbers of candidates from the merit list are called for interview at selected centers in the month of April/ May. Candidates who qualify in the interview have to take the medical examination. A final merit list is drawn on the basis of marks obtained both in written examination and interview. Existing number of vacancies are filled strictly in accordance with the position secured by the candidates in the all India merit list.

2.113 Army Dental Corps

From time to time dental surgeons are inducted in the Army Dental Corps. They are granted direct Permanent Commission/Short Service Commission.

2.1131 Short Service Commission – Short Service commission is granted to Dental surgeons who fulfill the following conditions: -

Age limit- Less than 45 years (relaxable in case of specialists and post-graduates)

Qualification- Graduate in Dental Surgery.

Medically fit in all respects.

2.1132 Direct Permanent Commission –Permanent Commission is also granted.

Age limit – Post graduate (MDS) 30 years/Graduate (BDS) 28 years.

Qualification- Postgraduate dental degree or BDS with 60% in final BDS examination.

Medically fit in all respects.

Selection procedure-There is a written (objective) and clinical test followed by an interview. Successful candidates at the written and clinical test are required to appear before the selection board for interview.

Lady candidates are also inducted in the Army Dental Corps.

2.6 Pay and Allowances for Officers

2.61 Dearness Allowance (DA) - Inflation neutralization is 100% at all levels. Inflationary rise in DA shall be based on the rise in the All India Price Index with effect from 1.1.1996. It is 59% of basic pay in July 2003.

2.62 City Compensatory Allowance – CCA has been based on class of city and Pay Scale. For Scale Rs.6500 and above, class AI cities Rs.300; class BI, Rs 180; and B2 class: Rs.120.

2.63 Transport Allowance – For executive officers in AI and A class cities: Rs. 800 and Rs. 400. In other class of cities supervisory staff shall get Rs. 400 in AI and A class cities and Rs. 200 in other cities.

2.64 House Rent Allowance – If accommodation is not provided by the government, house rent is admissible, depending on classification of city, as follows :

- AI with population 50 lakh and more: 30% of the maximum of scale
- A with population 20 to 50 lakh: 15% of the maximum of scale
- B1 with population 10 to 20 lakh: 15% of the maximum of scale
- B2 with population 5 to 10 lakh: 15% of the maximum of scale
- C with population 50,000 to 5 lakh: 7.5% of scale

2.65 Non-Practicing Allowance – Given to all medical personnel at a uniform scale of 25% of basic pay. However, basic pay+NPA should not exceed Rs. 29,500

2.66 Pay Scale - Defence Services Officers

The rank of 2Lt. in Army, pilot officer in Air Force and Acting Sub/Lt. in Navy has been abolished. Time scale promotion and pay scales are as follows: -

Fig 2.66 Pay Scales of Defence Officers

Rank-Army	Rank-Navy	Rank-Air Force	Pay scales and Rank Pay (Included in Basic Pay)
Lieutenant	Sub Lieutenant	Flying Officer	8500-300-10050/NA
Captain	Lieutenant	Flight Lieutenant	9600-300-11400 /400
Major	Lieutenant Commander	Squadron Leader	11600-325-14850/1200
Lieutenant Colonel	Commander	Wing Commander	13500-400-17100/1600
Colonel	Captain	Group Captain	15100-450-17350/2000
Brigadier	Commodore	Air Commodore	16700-450-18050/2400
Major General	Rear Admiral	Air Vice Marshal	18400-500-22400/NA
Lieutenant General	Vice Admiral	Air Marshal	22400-525-24500/NA
VCAS/GOC-in-C	VCNS/C-in-C	VCAS/AOC-in-C	26000 Fixed
General	Admiral	Air Chief Marshal	30000 Fixed

2.7 Promotions

2.71 All Arms except, medical, dental, RVC and Military Nursing Services

- Lt. to Captain: 5 years of service
- Captain to Major: 10years of service
- Major to Lt Colonel: 17years of service or 20 years

Promotion to Lt Colonel and above is through selection.

2.72 Medical – From AFMC – Lieutenant to Captain after 1 year. Direct Entry (after intern-ship).

Captain to Major: 4 years of service. **Major to Lt Colonel:** 13 years of service

2.73 Dental – Induction as Lt. after one-year service: Captain. Captain to Major: 6 years service.

Major to Lt Colonel: 14 years 6 months service

2.74 Remount Veterinary Corps – Joins as Lieutenant. After one year service promoted to Captain's rank. Captain to Major after seven years service. Major to Lt. Colonel- 17 year's service. Promotion to Colonel rank and above is through selection for all officers.

2.8 Allowances – Dearness Allowance: Inflation neutralization 100% is granted based on rise in All India Price index with effect from 1.1.1996.

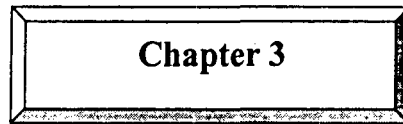
- **Flying Pay** for fighter pilots Rs. 9000 a month, submarine pay and hazard allowance for Siachen is Rs. 7000 a month. Flying pay for helicopter and transport aircraft Rs. 7000 a month.
- **Kit Maintenance Allowance** is RS. 200
- **City Compensatory Allowance:** Refer scale for Group I civil officers.
- **House Rent Allowance:** Refer scale for Group I civil officers
- **Non-Practicing Allowance:** Refer scale for Group I civil officer for medical and dental Service.
- **Counter Insurgency Allowance** for Peace, Modified Field and Field Area varies from Rs 2000/- to Rs 3900/- depending upon the involvement in different intensity of operations.

2.9 Other Allowances:

- **Specialist Pay:** Medical senior advisor: Rs. 1200. Classified specialist: Rs. 1000. Graded specialist Rs. 1000
- **Technical Pay** presently Rs. 750, however it is being reviewed further.
- **High Altitude Allowance** Category II above 15000 feet. : Lt Col. And above: Rs. 800. Major: Rs. 700. Captain: Rs. 330 Lt: Rs 265.
- **Field Allowance** (Type 1 hard): Lt Col: 1300. Major: Rs. 1200. Captain: Rs. 1100. Lt.: Rs. 1050. (Type II modified): Lt Col and above: Rs. 500. Major: Rs. 465. Captain: Rs, 430. Lt.: Rs. 400.
- **Separation Allowance Navy** (while at sea): Lt. Cdr. and above: Rs.335. Lt. Cdr: Rs. 300. Lt: Rs. 280. Sub Lt.: Rs. 265.
- **Diving Allowance** has been doubled.
- **Survey Pay** has been doubled.

2.10 Summary

This Chapter dealt with various eligibility conditions for entry into the Armed Forces, details of written tests and interviews. The various arms and services of the three wings of the Armed Forces were also highlighted in addition to covering service conditions and Pay and Allowances.



Motivation and Youth

I'm simply a plain ordinary man, highly motivated.

- Theodore Roosevelt

3.1 Introduction

Motivation is an important factor guiding all human endeavours. In every walk of life an individual has to be motivated to accomplish results. The soldier's performance of duty entails exposures to grave dangers. It requires adjustment to all the savage conditions of life on a battlefield. He has to remain motivated to carry out his task in such difficult and strange environment (Sinha, 1976).

Motivation is as complex as human nature. It is a subject matter of multiple disciplines of learning. Human resource developers knew it long before that there are drives and motives behind human activities. Social sciences such as Psychology, Sociology, Cultural anthropology, Economics etc. study the problem and endeavour to discover the laws governing human nature (Mandle, 1979).

3.2 Meaning of Motivation

Scholars have variously defined motivation. 'Motivation' is a Latin word, meaning 'to move'. Human motives are internalized goals within individuals.

Motivation is one of the important factors affecting human behaviour. The level of motivation does not only affect perception and learning but it also affects the total performance of the individuals, as expressed by:

$$\text{Performance} = \text{Ability} \times \text{Motivation}$$

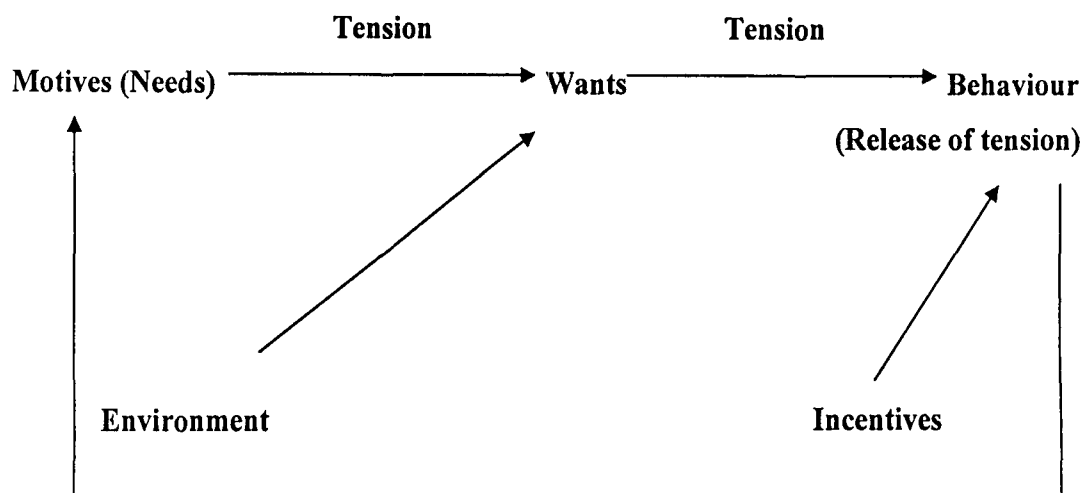
The motivation is also affected by various psychological factors such as perception, learning and personality.

Motivation has come from motives, which are the expression of human needs by people. In fact, the activities of human beings are caused and behind every action there is particular motive or need. Thus, motivational relationship can be expressed in the following formula:

$$\text{Motivation} = \text{Valence} \times \text{Expectancy}$$

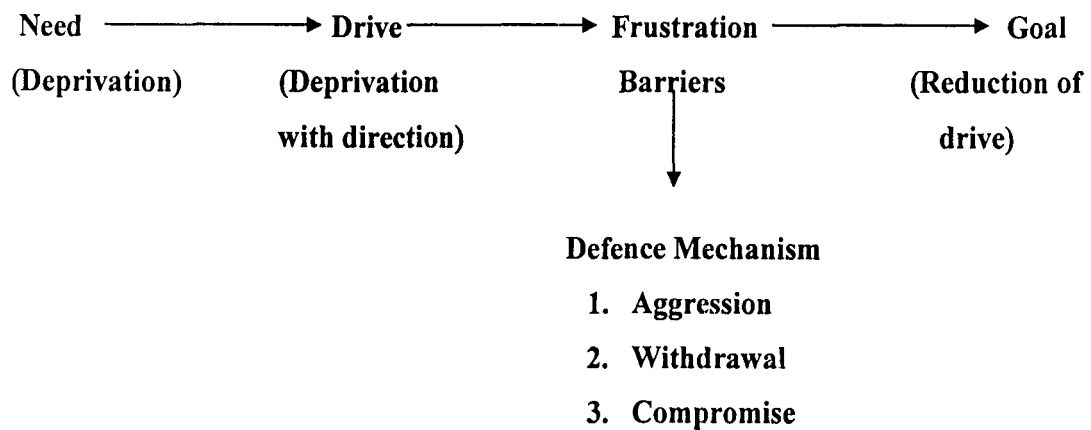
- 3.3 Motivation and Behaviour:** Motivation causes goal-directed behaviour. Feeling of a need by a person causes him to behave in such a way that he tries to satisfy himself. This can be expressed in the following figure:

Fig 3.3 Needs Cause Behaviour



- 3.4 Model of Frustration:** Satisfaction of one-need leads to feeling of another need. If the need is not satisfied because of some reason, frustration results. Since frustration is not an ideal position for the person, he will try to bring him back by alternative behaviour as shown in figure.

Fig: 3.4 A Model of Frustration



"Motivation refers to the degree of readiness of an organism to pursue some designated goal, and implies the determination of the nature and locus of the forces, including the degree of readiness".

Encyclopedia of Management.

"Motivation is the stimulation of any emotion or desire operating upon one's will and prompting, driving it into action".

"Motivation refers to the drive and effort to satisfy a want or goal. Satisfaction refers to the contentment experienced when a want is satisfied. In other words, motivation implies a drive towards an outcome and satisfaction involves outcomes already experienced".

Harold Koontz and Cryil O' Donnell.

As Burleson and Steiner state, “A motive is an inner state that energizes, activates, or moves and directs or channels behaviour towards goals”. Stanford and Wright man describe a motive thus “It is a restlessness, a lack, a yearn, a force. Once in the grip of a motive, the organism does something to reduce the restlessness, to remedy the lack, to alleviate yearns, to mitigate forces”.

3.5 Characteristics of Motivation

3.51 Individuals Differ in Their Motivation: The viewpoint that ‘there is only one economic drive that determines behaviour is untenable. The goals to which an individual aspires are many and so are his motivations. The oft quoted story about three men cutting stones near a cathedral, about three fourths completed, is well known. While the first man cut stones for making ends meet, the second person did it for seeking job satisfaction and the third man accomplished group goals through this activity.

3.52 Motivations Change: Motivation of each individual changes from time to time even though he may continue to behave in the same way. For example, a temporary worker may produce more in the beginning to become permanent. When made permanent, he may continue to produce more- this time to gain powerful position and so on.

3.53 Sometimes The Individual Himself is unaware of his motivation. Freud uncovered this phenomenon while analyzing critical patients. He found that man is like an iceberg. Only a small part is conscious and visible. The rest is beneath the surface. This below the surface concept is unconscious motivation. That is why a person can not always verbalize his motivation to attain certain goals.

3.54 Motivations Are Expressed Differently: The ways in which needs are eventually translated into actions vary considerably between one individual and another. The reactions of individuals to successful or unsuccessful fulfillment of their needs may also differ. Some become frustrated and give up trying.

3.55 Motivation is Complex: It is difficult to explain and predict the behaviours of workers. The introduction of an apparently favorable motivational device may not necessarily achieve the desired ends, if it brings opposing motives into play. In a factory when blue-green lighting was introduced to reduce eyestrain, the output of male workers increased. But that of female employees declined. The investigations revealed that the latter disliked the change in lighting. They felt that the new type of lighting projected them in poor light.

3.6 Motivational Theories

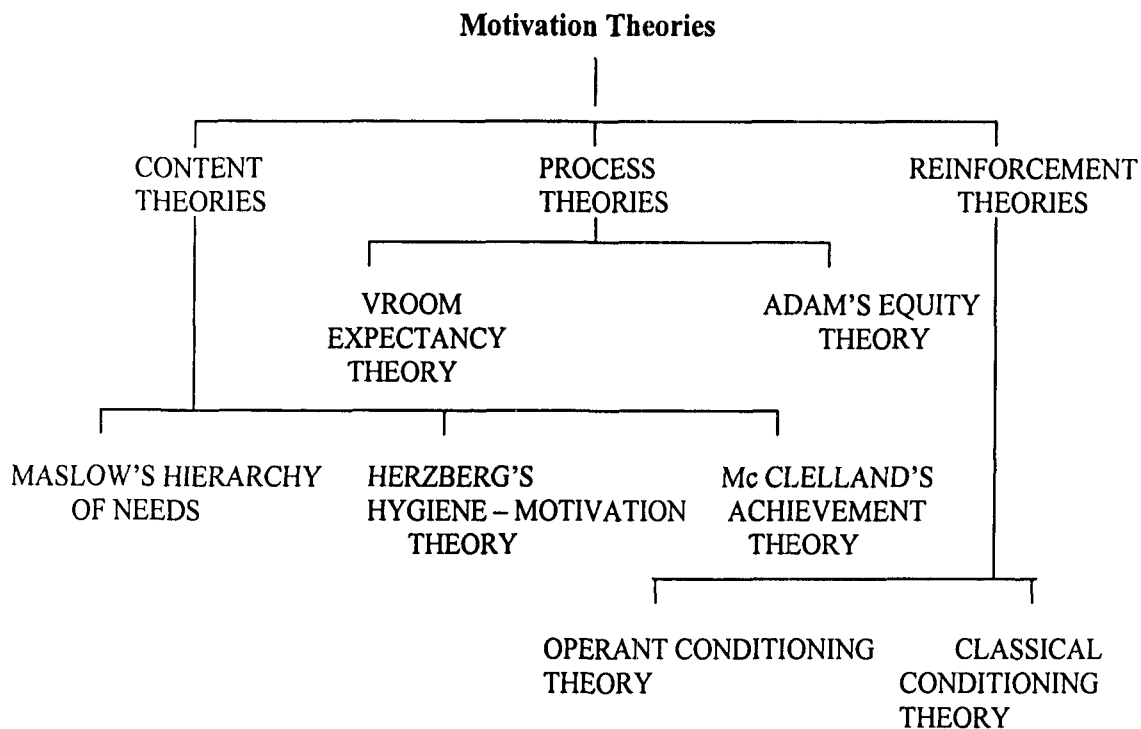
From the beginning, when human organizations were established, people had tried to find out the motivators for youth. The satisfactory and generalized answer is yet to be found out. F W Taylor conceptualized scientific management and particularly differential piece rate system for motivated workers. The findings of motivational research studies and theories are affected by time, country and circumstances. Thus is due to complex nature of youngsters.

We can classify motivation theories under three broad heads –

1. Content Theories
2. Process Theories, and
3. Reinforcement Theories.

The content theories explain what energizes an individual's behaviour. These determine such needs of an individual as energies and direct his behaviour. The Process Theories of motivation show how behaviour is energized and directed. And Reinforcement Theories highlight the ways in which behaviour is learned, shaped or modified.

Fig 3.6 Classification of Motivation Theories



3.7 Applicability of Motivational Theories To Youth while Opting For Various Careers.

For the youngsters from Schools and Colleges seeking entry into various Vocations, Maslow's Hierarchy of Needs is the most relevant theory. It is because unemployed educated youth tend to satisfy their basic needs first i.e. lower order needs. These are physiological needs i.e. food, clothing and shelter. Then, youth move up to satisfy their security and social needs. Once physiological, safety and social needs are fulfilled, youngsters yearn for higher order needs like Esteem Needs and self-actualization needs.

Such Higher order needs are seldom applicable to youth looking for a career just after leaving school/college. Through recruitment into an appropriate profession personal safety and job security is adequately met. On the other hand, higher order needs like Social, Esteem and Self Actualization needs arise subsequently once the youth is well entrenched in the chosen career. Hence, this theory is discussed in greater detail. Other theories like Hygiene-Motivation Theory; Mc McClelland's Achievement Theories etc are more relevant to professionals who are already employed in a vocation.

3.8 Maslow's Needs Hierarchy Theory

Dr. Maslow's theories of basic needs provide valuable insights about human motivation. Maslow views an individual's motivation as a pre-determined order of needs which he strives to satisfy. Maslow model of 'Hierarchy of Needs' indicates the following prepositions about human behaviour: -

3.81 *Man is a wanting animal, as soon as one of his needs is satisfied, another appears in its place. The process is unending. It continues from birth to death. Man continuously puts forth efforts to satisfy his needs.*

3.82 *A satisfied need is not a motivator of behaviour. Only unsatisfied needs motivate behaviour.*

3.83 *Man's needs are arranged in an ascending order of importance.*

3.84 *Physiological, Safety and Love needs are described, as low order needs, Esteem, and self-actualization as higher order needs. The distinction stands on the premise that higher order needs are*

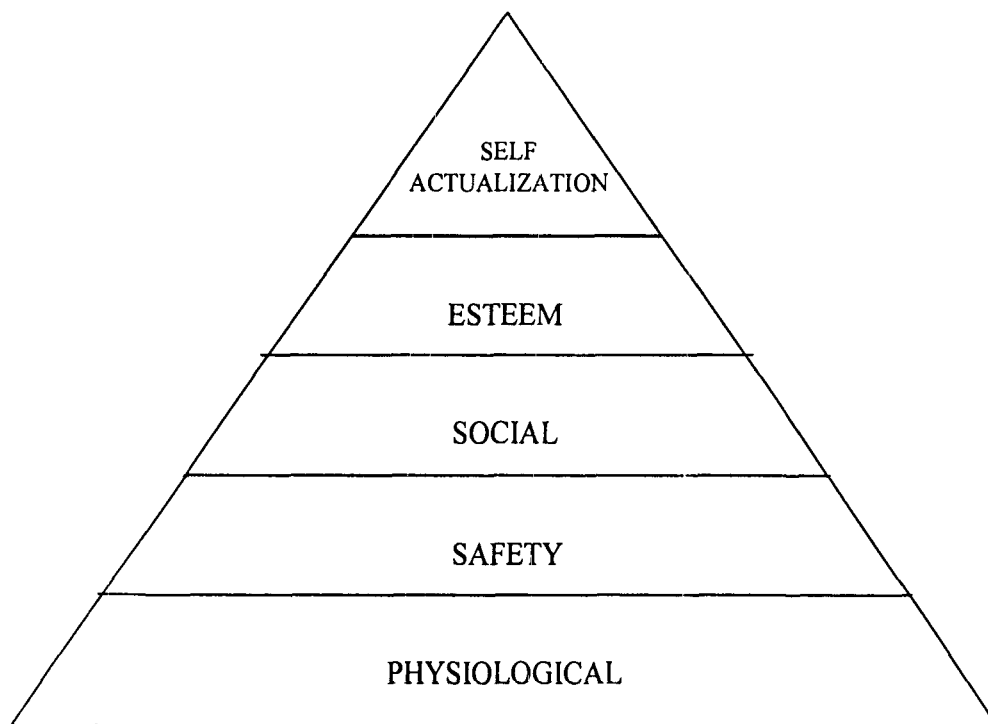
satisfied internally to the person whereas lower order needs are predominantly satisfied externally (e.g. money, wages, and good working condition).

Maslow proposed that basic needs are structured in a hierarchy of prepotency and probability of appearance. A schematic version of the five level triangles is portrayed in Fig. 3.8.

3.81 *Physiological Needs:* Physiological needs are the biological needs required to preserve human life. These needs include food, clothing and shelter. These needs must be met at least partly before higher level needs emerge. They exert a tremendous influence on behaviour. They are the most powerful of motivating stimuli, for we must satisfy most of them in order to exist (survive). These take precedence over other needs when thwarted. As pointed out by Maslow, “Man lives by bread alone”, when there is no bread, physiological needs dominate, when all needs are unsatisfied. Physiological needs have certain features in common.

3.811 These provide meaning to work life. Individuals are not treated as inert instruments, glorified machine tools, and mere appendages in the production process. People congregate because of mutual feelings of being beaten by the system. They seek affiliations because they desire to have their beliefs confirmed.

3.812 Social needs are regarded as secondary because they are not essential preserve human life. They are nebulous because they represent needs of the mind and spirit, rather than of the physical body.

Figure-3.8 Maslow's Hierarchy of Needs

- 3.8121 They are relatively independent of each other.
- 3.8122 In many cases they can be identified with a particular organ in the body (hunger-stomach).
- 3.8123 In any affluent culture, these needs are unusual rather than typical motivators.
- 3.8124 Physiological needs are essentially finite.
- 3.8125 They must be met repeatedly within relatively short time periods to remain fulfilled.
- 3.8126 Satisfaction of physiological need is usually associated not with money itself but what it can buy.

3.8127 Most of the physiological needs require some conscious provisions for their future satisfaction.

3.82 *Safety Needs:* Once physiological needs become relatively well gratified, the safety needs begin to manifest them and dominate human behaviour. These include:

3.821 Protection from physiological damages (Fire, accident).

3.822 Economic security (fringe benefits, health, insurance programmes).

3.823 Desire for an orderly, predictable environment, and

3.824 The desire to know the limits of acceptable behaviour.

Maslow stressed emotional as well as physical safety. Thus, these needs are concerned with protection from hazards of life, from danger, deprivation and threat. Safety needs are primarily satisfied through economic behaviour. Organisation can influence these security needs either positively through pension schemes, insurance plans or negatively by arousing fears of being fired or laid off. Safety needs too are emotional, only if they are unsatisfied. They have finite limits.

3.83. Higher Order Needs - the Love Needs: After the lower needs have been satisfied, the social or love needs become important motivators of behaviour. Man is a gregarious animal and wants to give and receive friendship and affection. Social needs tend to be stronger for some people than for others and stronger in certain situations. Social needs have certain features in common.

- 3.831 They provide meaning to life. Individuals are not treated as inert instruments, glorified machine tools, and mere appendages in the production process. People congregate because they desire to have their beliefs confirmed.
- 3.832 Social needs are regarded as secondary because they are not essential to preserve human life. They are nebulous because they represent needs of the mind and spirit, rather than of the physical body.
- 3.833 Social needs are substantially infinite.
- 3.834 Social needs are primarily satisfied through symbolic behaviour of psychic and social content. Where these are not met, severe maladjustment is probable; where the hunger for companionship is assuaged, the mental health of the organism is once again on a better lease.
- 3.84. *Esteem Needs:* Esteem needs is two fold in nature – self esteem and esteem of others. Self-esteem needs include those for self-confidence, achievement, competence, self-respect, and knowledge and for independence and freedom. The second group of esteem needs is those that related to one's reputation needs for status, for recognition, for appreciation and the deserved respect of one's fellow/associates. Esteem needs have certain features in common.
- 3.841 They do not become motivators until lower level needs are reasonably satisfied.
- 3.842 These needs are insatiable; unlike lower order needs, these needs are rarely satisfied.

- 3.843** Satisfaction of esteem needs produces feelings of self-confidence, worth, strength, capability and adequacy of being useful and necessary in the world.
- 3.845** The satisfaction of esteem needs is not always obtained through nature or adaptive behaviour. It is sometimes generated by irresponsible actions.
- 3.846** The modern organisation offers few opportunities for the satisfaction of these needs to people at lower levels in the hierarchy.
- 3.85** *Self Actualization Needs:* These are the needs for realizing one's own potentialities for continued self-development for being creative in the broadest sense of that term. Self fulfilling people are rare individuals who come close to living up to their full potential for being realistic, accomplishing things, enjoying life, and generally exemplifying classic human virtues. Self-actualization is the desire to become what one is capable of becoming. A musician must make music, a poet must write, a General must win battles, an artist must paint, a teacher must teach, if he is to be ultimately happy. What a man CAN be, he MUST be. Self-actualization needs have certain features in common.
- 3.851** The specific form that needs take will vary greatly from person to person. In one person, it may be expressed materially in still another, aesthetically.
- 3.852** Self realization is not necessarily a creative urge. It does not mean that one must always create poems, novels, paintings and experiments. In a broad sense, it means creativeness in realizing to the fullest one's own capabilities; whatever they may be.

- 3.853 The way self-actualization is expressed can change over the life cycle e.g. John Borg, Rod Leaver, switching over to coaching after excelling in their respective fields.
- 3.854 These needs are continuously motivational.
- 3.855 These needs are psychological in nature and are substantially infinite.
- 3.856 The conditions of modern life give only limited opportunities for these needs to obtain expression.

3.86 Evaluation

Although of great societal popularity, need hierarchy as a theory continues to receive little empirical support. The available research certainly generates reluctance to accept the implication of Maslow's theory unconditionally.

- 3.861 *Theoretical Difficulties:* The need hierarchy theory is almost a non-testable theory. It defines empirical testing, and it is difficult to interpret and operationalize its concepts. e.g. what behaviour should or should not be included in each need category? What are the conditions under which the theory is operative? How does the shift from one need to another take place? What is the time span for the unfolding of the hierarchy? After reviewing 22 studies, Wabhu Bride well concludes, "review shows that Maslow's theory has received little clear or consistent support. Some of the prepositions are totally rejected, while others receive mixed and unquestionable support at best. Maslow's simplified theory is grossly incomplete and must be viewed as a theoretical statement rather than an abstraction from field research.

- 3.862 *Research Methodology:*** Maslow's model is based on a relatively small sample of subjects. It is a clinically derived theory and its unit of analysis is the individual. Maslow, recognising these limitations, presented the model, with apologies to those who insist on conventional reliability, sampling etc.
- 3.863 *Superfluous Classification Scheme:*** The need classification scheme is somewhat artificial and arbitrary. Needs cannot be classified into neat watertight compartments, a neat five steps hierarchy. The model is based more on wishes of what man SHOULD BE than what he ACTUALLY IS. Some critics have concluded that the hierarchy should be viewed merely a two tiered affair, with needs related to existence (survival) at the lower level and all other needs prospect at the second level.
- 3.864 *Chain of Causation in the Hierarchy:*** There is no definite evidence that once a need has been gratified, its strength diminishes. It is also doubtful whether gratification of one need automatically activates the next need in the hierarchy. The chain of causation may not always run from stimulus to individual needs to behaviour. Further various levels in the hierarchy imply that lower level needs be gratified before a concern for higher level needs develop. In a real situation, however, human behaviour is probably a compromise of various needs acting on us simultaneously. Some outcomes may satisfy more than one need.
- 3.865 *Needs Are Crucial Determinants of Behaviour:*** The concept of needs is introspective in nature and so cannot be tested objectively. It is difficult to catalogue the multifarious needs of individuals and point out clearly as to how one need differs from another. The limitations, critics have questioned the usefulness of the needs theory. Because of its assumption that need is the crucial determinant of behaviour is also open to doubt. Behaviour is

influenced by innumerable factors (not necessarily by needs alone). Moreover, there is ample evidence to show that people seek objects and engage in behaviour that is in no way connected to the gratification of needs. It is also worth noting that the Maslow's model presents a somewhat static picture of individual needs structure. The facts that the relative mix of needs changes during an individual's psychological development have been ignored. In addition, a longitudinal view of needs is totally missing. The needs of workers change over time inevitably. Owing to these limitations, the need priority model provides, at the best an incomplete and partial explanation of behaviour.

- 3.856 *Individual Differences:* Individuals differ in the relative intensity of their various needs. Some individuals are strongly influenced by love needs despite having a flourishing social life and satisfactory family life. Other individuals have great and continued need for security despite continued employment with enormous fringe benefits, young workers have greater esteem and self-fulfillment deficiencies than do older workers. Culturally disadvantaged employees may feel stronger deprivation of biological and safety needs, whereas culturally advantaged employees prefer routine and standardized jobs. The picture will be very confusing if we apply the theory in different countries with cultural, religious differences. In one case, black managers, had a greater lack of need fulfillment than their black counterparts in almost every category. Surveys in Japan and continental countries show that the model does not apply to the managers. Cultural, religious and environmental influences play a major role in determining the need priority in various countries. Thus the theory hardly reckons with a whole of set of factors affecting individual need structure, positions in authority structure and culture etc. Few data support the idea that all people are capable of activating all levels of the need structure. Moreover managers do not have substantial amount of time for a leisurely diagnosis of where every employee is positioned in the Maslow's

need priority model.

3.9 Conceptual Framework: This provides a certain frame of reference for practice, research and education. Conceptual framework is a cohesive supporting linkage of selected, inter related concepts. It is the device adopted for organizing ideas and, in turn bringing order to related observations, events and experiences. It serves as a guide to research and a spring-board for the generation of research hypotheses.

From the literature reviewed, several ideas and information were collected. Later, the information was organized in the form of a conceptual framework. The aim of the present study is to identify the motivating factors of Indian youth while opting for a career and determine its implications for the recruitment policies of the Armed Forces. The career choice is influenced by many factors – familial factors such as parents, educational and occupation status, their income, religion etc., individual factors such as individual's cognition about a career, his/her own value systems or needs, social factors such as influence of mass media, influence of professionals or other members in the society etc.

People often choose a career because they correlate both achieving success in life and realizing their ambitions. The meaning of success can be categorized into socio-economic status, competitive edge over peers, growth orientation and inter-personal security. Competitive edge would indicate the power, position and respect. A growth orientation suggests that the person could improve change and climb the Career ladder i.e. meeting the self-actualization needs of Maslow's hierarchy. Inter-personal security is individualized to a great extent but could be that the person is able to feel comfortable and be at peace with life.

We like to pursue a career that we feel that we can successfully accomplish it. This is probably due to what we call our self-efficacy expectation. Self-efficacy is the belief in one's ability to perform an

experiment successfully. When individuals believe that they can be successful in a given career, they will more likely explore opportunities in that particular field.

Rosenberg (1957) points out that the individual's choice of a career is itself determined by those factors which it affects and those are: cognition i.e. the person's choice of a career reflects her/his knowledge about the world of work, ideas about the nature of various careers, their educational and training requirements, the abilities and skills required, their demands and rewards. And in making a choice, an individual is also guided by his/her cognition about himself/herself.

Individual choice of a career is also influenced by the value orientation and needs i.e. how it satisfies her/his needs; value an individual attaches to a particular career. Value may be "intrinsic" or "extrinsic". Intrinsic value of a career relates to the career preference for its own sake while extrinsic values are those that make a person seek for a career for what it may offer to him/her e.g. economic security or social status.

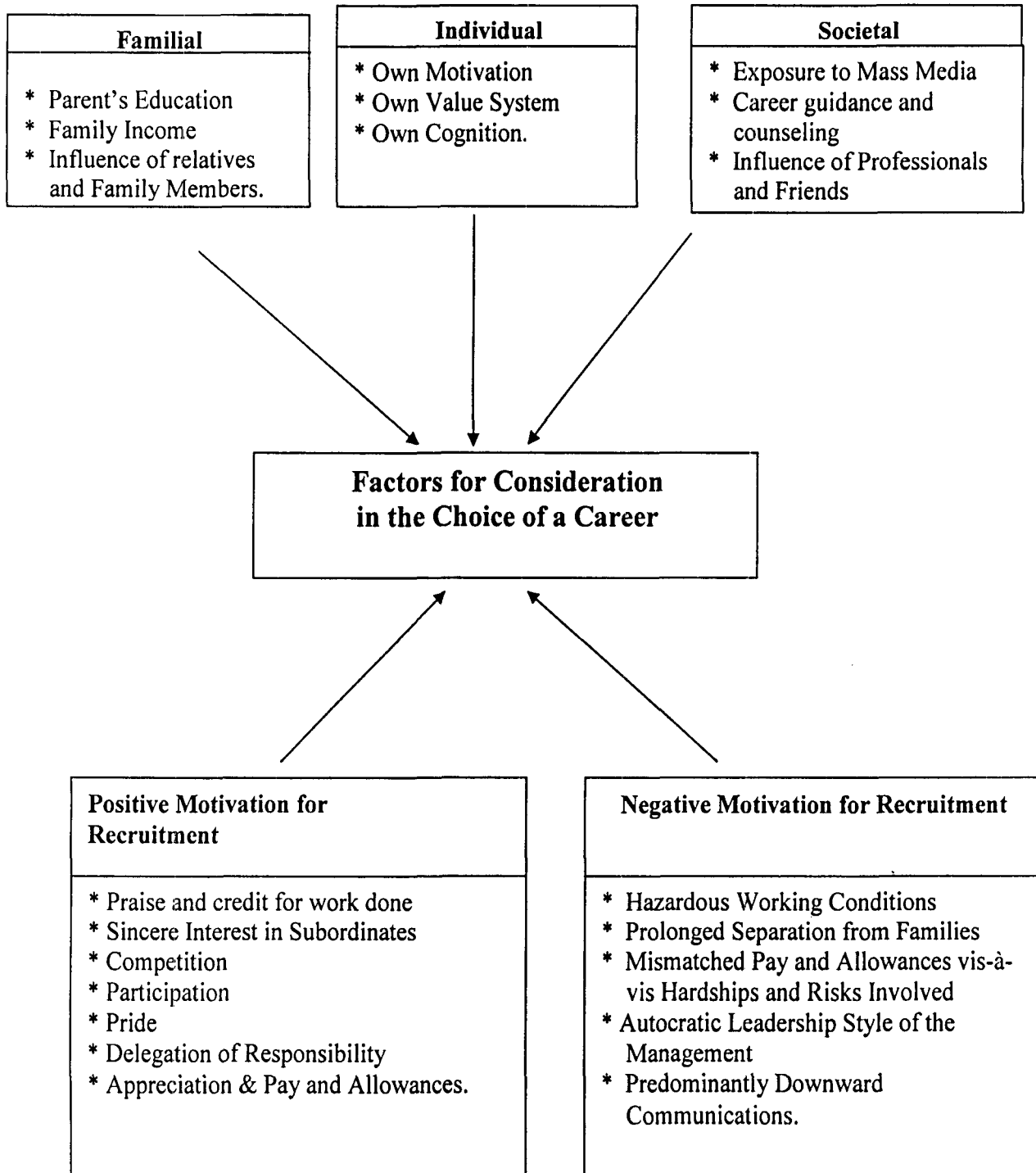
Motivation of youth is bound to have positive or negative impact on the recruitment policies of an organization depending upon pay and allowances, service conditions, status of employees vis-à-vis other professions, image of the concerned organization and the job satisfaction level of its members. While positive motivation generated through praise and credit for work done, sincere interest in subordinates, competition, participation, pride, delegation of responsibility and appreciation pulls prospective recruits towards an organization and induces them to apply for a job. On the contrary, negative or fear motivation created through hazardous service conditions, prolonged separation from families, deprivation of freedom of speech, limited promotion prospect, inferior status in

society, mis-matched pay and allowances vis-à-vis hardships and risks involved in a vocation cause eligible candidates to try out all other avenues of employment before applying for the Armed Forces. This results in poor quality youth applicants and inferior recruitment ratio. In such a situation, the Armed Forces have a little choice for selection from among poor quality candidates. At times, it has to compromise its selection standards to fill up the minimum vacancies and keep the organization 'going' somehow.

An organization with thirty percent persisting manpower shortfall in the officer cadre reflect on the inadequacy of recruitment policies, when viewed with other lucrative job options available to prospective candidates. Such an organization is either compelled to lower its recruitment standards or may have to improve its service conditions for better quality of work life and improve morale of its personnel.

The recruitment policies have to keep pace with the requirement of a job. The dilution of standards will have serious repercussions. The attainment of the objectives of such an outfit will be questionable in the long run due to poor performance of its members. And during a war, there is no prize for runners up.

Fig 3.9 Conceptual Framework



3.10 Summary

The level of the performance of a person is function of his abilities and motivation. Motivation affects behaviour. It propels an individual into action to achieve goals. Individual differ in their motivation. Motivation change from time to time. Sometimes the individual himself is unaware of his motivation. Motivations are expressed differently and are complex. There are three Theories of Motivation – Content, Process and Reinforcement. The content Theories explain what energizes an individual behaviour. The process theories show how behaviour is stimulated. And Reinforcement Theories emphasize the way in which behaviour is learned, shaped or modified. Youth's motivation for a career choice is mainly governed by **Maslow's Hierarchy of Needs**. Familial Considerations, individual choice and societal influences play an important role in the choice of a career by youth. Besides, positive and negative motivators inherent in a profession also affect choice for a career.

Chapter 4

Review of Literature

4.1 Introduction

A review of related literature is an essential activity of scientific research projects. Literature review refers to both the activities involved in searching for information on a topic, as well as to the actual written report that summarizes the state of the existing knowledge on a research problem.

Literature review helps the researcher in many ways. It helps the researcher to assess what is already known, what is still unknown and untested, justify the need for its replication, throw some light on the feasibility of the study and the problems that may be encountered by the researcher, and to uncover methodological tools, which shed light on ways to improve the efficiency of data collection, obtaining useful information on how to increase the effectiveness of data analysis.

The literature review involves systematic identification, location, scrutiny and summary of written material that contain information of a research problem. The investigator followed these steps in the review of related research and non-research literature to broaden the understanding and to gain an insight into the selected problem under study. Limited research literature is available on studies of motivators of youth opting for officer cadre in the Armed Forces. Few studies have been done on identifying the socio-economic background of the Armed Forces officers and improving the attractiveness of the Armed Forces as a career option.

The study of the relevant and related literature is organized as follows:

4.2 Studies related to career choice and factors influencing career choice.

4.3 Socio-economic status of Armed Forces officers.

4.2 Studies Related to Career Choice and Factors Influencing Career Choice

Given the prevailing emphasis on Commercial values and business success in the USA, selection of military career is often believed to be a weak career choice. Among segments of the civilian public, entry into the military is often thought of as an effort to avoid the competitive realities of civil society. In the extreme view, the military profession is thought to be a berth for mediocrity (Janowitz, 1964).

Pendelton Herring, writing on the eve of the attack on Pearl Harbour, stated the issue with the complete tact of a Harvard Professor of Political Science. He writes that the best talent and the most enterprising and ambitious young men would not seek to make the profession of arms their life career. They went into business and the well-rewarded professions.

Selection of a military career, like the selection of any career represents the interplay of opportunity, plus a complex of social and personality factors. In one sense, to say that the military is a mediocre career choice, is an expression of a liberal ideology, which holds that, since war is essentially destructive the best minds are attracted to more positive endeavors (Albuquerque, 2001).

In assessing the selection of military career, two rather specific empirical questions could be investigated. First, it is true that during the period which the 1910 –50 leaders were recruited, the military profession attracted persons whose basic intelligence was not equal to those in other professions. Second is the issue of motivation. Could it be that the underlying motivation for a military career is an expression of ‘careerism,’ whereby a person seeks what believes to be a non-competitive and protected route to the achievement of limited ambitions.

Upto the period of 1950, the meaning of career choice for the military elite suggests the following hypothesis. While for many persons, and even for majority the military career represented the pursuit of a relatively secure, safe and promising prospect more or less similar to other professions. For a substantial minority at least the choice of a military career was a strong decision. To speak of strong career choice means that a person feels that a particular occupation is singularly important to him, since he believes that it will give him the rewards and gratifications he wants. For such persons, the military career has overtones of a ‘Calling’, with a sense of mission (Nair, 1982).

For motive patterns, singly and in combination, were of consequence for those who rose to the level of General or Admiral by 1950 : tradition or more precisely family and social inheritance, sheer desire for education and social advancement with or without a career commitment to the military, experience in military setting and ‘boyhood’ ambition. The potential officer’s choice was furthered by adequate and respectable level of personal security in peacetime and desire for an active, athletic – type career. An attempt to provide a full time career to military officers has been found to be a mathematical absurdity. Because 87% strength of officers are

required in the ranks of Major and equivalent and below (Chibber, 1986).

‘The problems of the Officer Cadre of the Army’ highlighted in USI Journal of April-June 1997 states, “over the past few years, sufficient number of young persons, men and women are not volunteering to join the officer cadre of the Army. On 1st January 1997, the deficiencies of officers in different ‘Arms’ and ‘Services’ of the Army were Armoured Corps 30.4 percent, Infantry 25.3 percent, Field Artillery 32.5 percent, Air Defence Artillery 27.7 percent, Corps of Engineers 31.5 percent, Corps of Signals 29.6 percent, Army Service Corps (ASC) 34.4 percent, Army Ordnance Corps (AOC) 27.9 percent, Corps of Electrical and Mechanical Engineers (EME) 32.9 percent, Minor Corps 20.3 percent, Special List cadre 36.8 percent. Total 29.7 percent deficiencies in any hierarchical structure will not exist and the higher levels of the hierarchy since the vacancies at higher ranks will be filled up by promotions. The deficiencies show up at the ranks of Captains and Majors in units. Such high percentages of deficiencies, in effect mean that ‘Junior Leadership’ is virtually non-existent in units. In blunt terms, the fitness for war of most units is very questionable. As on 1st January 1997 the deficiencies in the officer cadre of the Navy were 5.68% and the IAF 7.47%” (Balaram, 1997).

Citing the possible reasons for deficiencies (De-motivators), he adds—pay, promotions, prestige and service conditions are important that make a service attractive. In spite of the best efforts of the chiefs of staff of the three Defence Services and their respective Headquarters over a period of 50 years, neither Pay Commissions nor the Government have paid much attention to what Defence Services have said. No attempt has been made by these agencies to provide

the officers of the Defence Services the same pay for the same length of service in comparison with the Indian Administrative or any other service as a basic necessity in pay structuring. Adequate compensation is not provided for hard living conditions, frequent movement all over India, living away from families and risk to life and limb, not only during wars which are infrequent but also during counter insurgency operations which are endemic. Most armies of the world build this element into the emolument structure or provide as Military Service Pay or X Factor Compensation. It is generally, observed that Chairman and non-bureaucrat members of pay commission, are sympathetic to the Defence Services when they visit and see the conditions in units in forward areas. However, they seem to forget these observations when making recommendations to the Government, perhaps under the overwhelming influence of members who are either serving or former bureaucrats. A vast majority of political leaders do not have sufficient ideas of the Defence Services, except perhaps the fact, that they take part in Republic Day Parades. Hence it has become a case of “Remembering God and Defence Services only when facing trouble”. It is very doubtful whether in present day India, ‘patriotism’ and ‘glamour’ and glory of the service play any great part in attracting good quality youth or even mediocre youth to join the officer cadre.

Summing up the dismal state of the officers cadre and the existing deficiencies, the highlights are:

- 4.21 *A sensible and equitable scale for the Defence Services has not been evolved by five successive pay commissions over half a century. Informed and dynamic political leadership to override bureaucratic obstruction to give the Defence Services their due does not exist.*

4.22 *Measures to improve the image of the Defence Services in general, and the Army in particular, are not likely to emerge in a hurry because of deeply entrenched vested interests.*

4.23 *'Patriotism', 'glamour' and 'glory' are no longer operative factors.*

4.24 *Political management may improve, mitigating the rigours of service conditions.*

4.25 *Promotion prospects may improve gradually with better cadre management.*

4.3 In a research project titled, "*How to make a career in the Armed Forces attractive*", undertaken by Mahajan (1999), spread over a year and involving interaction at different levels and survey among serving and retired officers, he had questioned 1108 respondents. 534 serving (70 percent were Major equivalent and below) and 131 retired (mostly colonel equivalent and above) officers of the three services and 443 students.

4.31 **The principal findings of the survey are:**

4.311 *Most serving officers are satisfied with the values that govern career choice and retention i.e. monetary compensation, professional development life style and social status.*

4.312 *Job satisfaction and promotional avenues are unsatisfactory, but can be alleviated by in-service reform.*

4.313 *Lack of married accommodation, quality education for children and truncated career are the main irritants in the quality-of-life indices.*

- 4.314 *The juniors hunger for better example and expect superior moral quality from senior officers.*
- 4.315 *The traditional non-material values of service life are still its most attractive features.*
- 4.316 *Certain non-institutional (organizational) trends have crept into the Armed Forces, which seek out of service appellate and associations to represent their interests.*
- 4.317 *Retired officers have no regrets for having joined the Armed Forces. However, they are deeply dissatisfied with the existing resettlement apparatus.*
- 4.318 *Students retain their respect for the Armed Forces and want to join them for traditional reasons but seek more flexible terms of service. They are quite ignorant about the Armed Forces.*
- 4.319 *Respondents were asked to give their suggestions (not under any specific headings) for improving the attractiveness of a service career. These suggestions are as follows:*

Fig 4.3 Measures to Improve Attractiveness of the Armed Forces

	Serving Officers	Retired Officers
a. Improve Monetary compensation	199 (12%)	23 (7%)
b. Provide additional facilities	122 (8%)	13 (4%)
c. Improve career Development	266 (16%)	54 (16%)
d. Improve service culture	479 (30%)	68 (20%)
e. Facilities for families	170 (11%)	34 (10%)
f. Facilities for retirees	45 (3%)	65 (20%)
g. Improve civil-military relations	320 (20%)	71 (22%)
Total Suggestions received	1600 (100%)	328(100%)

4.4 *The Principal Causes Affecting Armed Forces As a Career Choice.*

The respondents' chief concern is in respect of improving in-service culture, civil-military relations and career development (65% of the suggestions). The study points to six principal causes that influenced career choice for the Armed Forces.

4.41 *Poor politico-bureaucratic management of the Armed Forces creating a feeling among existing incumbents of not being allowed to realize potential.*

4.42 *Continuous whittling down of the authority and status of the senior hierarchy by government thus discrediting it and making it appears inept in the eyes of the subordinates.*

4.43 *An entrenched feeling in the Armed Forces that the commitment expected of them is, not matched by the society's commitment to them.*

4.44 *There is a lack of internal cohesion in the officer corps, caused principally by perceived poor moral quality of senior leadership and its inability to lead by example. Consequently, some negative societal values (e.g. sycophancy, individualism and consumerism) have permeated its ranks.*

4.45 *Poor management of ex-servicemen's welfare and resettlement.*

4.46 *Poor PR and media relations.*

4.5 Studies Related to Socio-Economic Status of Armed Forces

Officers.

In a presentation on Military and Society on 20-21 October 1986 at Vigyan Bhawan in New Delhi, it was held that the profile of the officer cadre had dropped to a lower middle class and perhaps even below that. The motivation, inspiration and priorities of the officers had changed. Unlike the King Commissioned Indian Officers (KCIOs) and the pre-world war-II Indian Commissioned Officers (ICOs) the values of today's officer were the same as in the civil; political clout and economic power. Therefore, the ethos is shifting from traditional values to self-interest and contractual rights. She went to the extent of suggesting that the motto at Chetwode Hall at the IMA could now be read in reverse. She referred to a research conducted by her in 1981, wherein she obtained views of 50 Lt Cols and 500 young Officers of between 1 to 10 years service (Awasthy, 1986).

4.51 The Findings of the Survey

4.511 *The most acutely felt stresses were financial stringency, separation from family, problems of children's education and provision for a house.*

4.512 *Along with this, i.e. at the same level, was the concern at the curbing of initiative and self-expression.*

4.513 *Two major considerations of an army officer priority wise were:*

4.5131 *Socializing and pleasing the boss.*

4.5132 *Professional competence came a poor second.*

- 4.514 *Husbanding resources and making contacts for post retirement competed strongly for the third place with training and welfare of troops.*
- 4.515 Assured re-employment for five years after retirement would ease the tension of 51 percent of all respondents.
- 4.516 90 percent of the senior respondents (Colonels and Brigadiers) affirmed a change in the attitude of young officers whose concern was with money, professional competence and furtherance of their career.
- 4.517 Accent was on pleasing the boss to obtain a good ACR.
- 4.518 Career furtherance rather than competence in the exercise of command was the consideration.
- 4.519 Seniors tend not to stand by their subordinates. If any thing goes wrong they tend to make a scapegoat of them.
- 4.520 Cadets at the officers training establishment are reluctant to opt for fighting arms. Where as the vacancies for ASC and other services are over subscribed by over three times.
- 4.521 **Stagnation and Selection System:** Even after 1980/81 cadre review of 34851 officers in the Army, 87.78% are in the rank of Major and below, 10.11%, Lt. Col/Colonel and only 3.11% are Brigadiers and above. In a batch of 100 passing out of the Academy in a given year, 60 will become Lt. Cols. of whom only 50 will become Colonels, 20 will reach the rank of Brigadier, 8 of Major General and 2 that of Lt. General. She

compared this with the scope in the IAS where everyone reaches the rank of Joint Secretary and stated that although the cadre of Army officers is 10 times as large as the IAS, it has only one full General as against many scores officers of the rank of Secretary to the Govt. of India.

- 4.522 Performance Appraisal:** The confidentiality of the ACR goads the officer into sycophancy. Marking standards vary and those who are lucky to serve under generous 'awarders' do well. Assessment is based on traits and is not a review of job performance. There is a high degree of subjectivity and often influenced by non-professional issues, regimental preferences and personal equation

4.6 Recruitment Trends of the Indian Armed Forces

During an address at USI on 14th February 1977 contended that brilliant youth of the country did not favour joining the officer corps. The following statistics were indicative of certain trends:

- 4.61** *"At the Indian Military Academy, in 1974-75 only 70% of the vacancies was subscribed and in the Technical Arms it was a mere 50%. As far as the quality of the intake was concerned, 88% of the candidates were in the lowest acceptable grade".*
- 4.62** *At the National Defence Academy, 30% of the intake was sons of JCOs and NCOs, 20% were the sons of Civilians who had sent their sons to Sainik Schools, and 40% were those who did not make the grade for Universities.*
- 4.63** *A bare 10% were the sons of service officers of which 9% fell in the category of those who could not make the University grade. For the past two to three years hardly any son of a*

General Officer joined the National Defence Academy. The implications of these statistics cannot be glossed over with impunity. Although this malady is not peculiar to our country, but we can drive no comfort from the fact that other nations too are not finding it easy to adapt to changing times and changing motivations. That these changes are of deep consequence cannot be denied. To substantiate this point a few quotations may be a matter of interest - "The British soldier of the Second World War himself was less simple in his loyalties and psychology, better educated than his predecessor in the Great War. He had grown up in an era of radio and the cinema and the popular press. He was not so trusting and obedient as the 'Tommy' of 1914-18. Resentment of unemployment and of the general failure of the traditional ruling class to tackle resolutely the economic, social and political problems had led to suspicion and cynicism. The men of Second World War did not show the same qualities of stoical endurance as those of the Great War. Divisions lost their fighting 'edge' more quickly. A lower proportion of casualties than in the Great War were needed to bring a unit to the point of needing relief.

This was the price paid for higher effective intelligence and initiative. The British Army of Second World War required intelligent management by its leaders. Public Relations became a respectable military activity. The styles of leadership altered from somewhat remote and formal authority of the C-in-C and army Commanders in the great war to a more personal kind of leadership – commanders like Auchinleck, Alexander, Montgomery, and most important of all, Slim became immediate and personal figures to the troops, not merely embodiments of command to whom was owed, unquestioned respect and obedience. Within the above quotation, there is much food for thought (Janowitz, 1964).

During the discussion on “Recruitment into the Officer Corps of the Armed Forces” held at USI on 14th Feb. 1977, it was unanimously accepted that today’s youth disliked hard work and hazardous life and the inadequacy of emoluments. Youth preferred to join commercial concerns or Government’s administrative and foreign services, rather than forces. It is quite incorrect to interpret. The large number of applications for commissioning is being indicative of enthusiasm for life in the forces. It is economic necessity, which drives them into services. The acceptance of all elements of society into the officer ranks, due perhaps to socio-economic changes, means firstly, that mediocre will form the great majority of the officer intake and that such material however well trained, cannot produce the form of leadership (in its widest sense) which exudes complete confidence. Secondly, a dilution of standards for commissioning (and this has been repeatedly resorted to) cannot be tolerated beyond a certain point. In-service training however, intense and efficient, can achieve only limited success.

During USI Editors Guild Seminar on “The Soldier and his Alienation from Society” it was contended that relative importance of different motives for a man joining the Armed forces is difficult, if not impossible, to reconstruct. An official questionnaire study of about 8000 graduates at West Point, USA concluded, “relative to compelling factors for entering west point almost all indicated that honour and prestige was the most important reason” (Grant, 1996).

In the past, officers were traditionally drawn from the land owning or wealthy classes and other ranks from Yeomen’s stock. Therefore, there was no problem of their rehabilitation as officers on retirement went back to their estates or lived on their private income. With the ushering in of the new social order, the type of intake into the Armed Forces, both officers and other ranks materially changed.

officers and men now came into Defence Forces for careers and depend only on pay and allowances for their livelihood.

One of the strongest motivating factors is the urge of an individual to reach his full potential and level of competence. The lack of openings in the services denies him this legitimate need causing deep-rooted frustration and affecting the quality and output of his work.

4.7 Summary

This chapter dealt with the review of literature related to present study. Literature was reviewed in the areas of motivating factors for students opting for Armed Forces and socio-economic background of the defence respondents. The review of literature helped the investigator to develop a deeper understanding of the problem under study and development of the tool for data collection and interpretation of the findings. The next chapter deals with research methodology used in the present study.

Chapter 5

The Present Study and Research Methodology

5.1 Need for the Study

Armed Forces require high standard of training and skill. Success of Defence Services of the nation depends on quality and motivation of its Human Resources. Despite that efforts have not been made to identify the motivational profile of aspirants. The Armed Forces have to motivate a person to enlist; after enlistment to keep him motivated in peace conditions and ensure that he also remains motivated on the battlefield. Even if taken a prisoner in battle, the soldier must keep his morale high to escape from prisoner-of-war camp and return to own Forward Defended Localities.

During national crisis, patriotic fervour is at its peak. People voluntarily come forward to join the Armed Forces in response to patriotic urges. In 1962 General (later Field Marshal) Cariappa, who was then over 60 years old, had reported for recruitment at Bangalore Recruiting Office. During Kargil conflict in June-July 1999, Chief of Army Staff secretariat was flooded with letters from volunteers requesting him to allow them to serve at the battlefield in an honorary manner. A large numbers of youth came forward for enlistment at Darbhanga, Danapur, Jaipur and Jamnagar recruitment centres. Overcome with patriotic sentiments, these youth turned unruly and violent. The police had to resort to firing-causing a number of deaths in the recruitment violence. Were these youth spurred by patriotic fervor or unemployment? And that they saw Kargil conflict and rising death toll on the battlefield as an opportunity for enrolment.

Developed societies found it necessary to impose conscription in the last two world wars. This indicates that even under wartime condition and consequent patriotic fervour during the war, the required number of volunteers would not be forthcoming to join the Armed Forces. Hence, the need for conscription. We cannot therefore, overplay patriotism as a motivating factor for an individual joining the Armed Forces. This problem is even more acute during periods of peace when patriotic urges may not be so prominent (Sinha, 1976).

Under normal conditions monetary incentives and service conditions remain the prime motivating factor for an individual to choose career in the Army. It is by no means suggested that these are the only motivating factors. Attachment to traditions, love for adventure too plays their part. In times of crisis, patriotic fervour also plays a notable part in motivating youth in choosing a career in the Armed Forces. In an open society like India and particularly in normal times, youth can be motivated to join the Army only if they are offered comparable career to what is available to him in other walks of life. If service conditions in other career options are better than the Army, then we must accept the inevitable that those who join the Army would do so only as a last resort. In view of continuing short-fall of 13,000 officers despite two cadre reviews and five pay Commissions, the investigator intends to explore factors motivating eligible youth while opting for a career. Hence, the statement of the problem for the present study is:

5.2 Statement of the Problem

“Motivational Factors of the Indian Youth While Opting for a Career with Special Reference to Delhi Region”.

5.3 Objectives of the Study

- 5.31** To identify factors influencing youngsters opting for a career.
- 5.32** To determine the career preferences of modern day youth and to ascertain rank the Armed Forces enjoy in the order of preference vis-à-vis other professions.
- 5.33** To find out the degree of involvement of various individuals influencing the choice of a career for youth.
- 5.34** To ascertain the degree of importance of various motivators in the choice of career of student youth.
- 5.35** To ascertain Significance of Relationship between Ranking of Defence Serviced by Student Respondents and their demographic profile.
- 5.36** To identify reasons for shortfall of manpower in the officer's cadre of the Defence Services.
- 5.37** To determine the degree of effectiveness of various measures instituted by the Defence Services to overcome the shortfall of Officers.
- 5.38** To suggest measures for attracting youth towards the Defence Services and evolve effective recruitment policies in the present day context.

5.4 Hypotheses

In consonance with the objectives the following null hypotheses were formulated with regard to student respondents: -

- Ho1** *There is no difference in the preference of modern day youth regarding various career options vis-à-vis Defence Services.*
- Ho2** *Regional Nativity, House Location, Religion, SC/ST/OBC/General Category and type of school attended by Student Respondents have no relationship with ranking accorded by them to Defence Services.*
- Ho3** *Number of brothers, sisters, Gender, Age Group and Academic Performance of Student Respondents, have no significant bearing on Ranking of Defence Services by them.*
- Ho4** *Educational status of parents, family's income and parents' occupation of Student Respondents have no significant relationship with ranking of Defence Services by them.*
- Ho5** *Serving/Retired Relatives in the Armed Forces, Branches in the Armed Forces, Designation of Family Members and Type of Family of Student Respondents have no significant relationship with Ranking of Defence Services by them.*

5.5 Research Approach and Design

This study uses exploratory as well as a descriptive research design. It uses both close-ended as well as open-ended questions. Close-ended questions have been used in respect of such issues wherein the contours of the research problem have been ascertained on the basis of survey of existing literature. However, those issues wherein the dimensions of the problems are not yet clear, open-ended question have been asked. The analysis of close-

ended questions has been done using standard statistical procedures. Two separate questionnaires were developed for student and defence respondents.

5.6 Data Sources

This study uses both primary and secondary data sources. Primary data was collected directly from respondents while secondary data was collected from published as well as 'On Line Data Sources'.

Primary Data was collected from students of class XII, undergraduate and PG classes. Apart from student respondents, the primary data was collected from Armed Forces personnel.

Secondary Data Sources, as noted above, various published sources were consulted. Following Institution/Libraries were scanned for collecting secondary data: -

- United Service Institution Library in New Delhi.
- Andhra University Library, Visakhapatnam.
- On Line Data Sources and Web Sites.

5.7 Sampling Plan

A population is a group of individuals that have one or more characteristic in common that is of interest to the researcher. The population for the present research study comprised 225 students (75 students each of class XII, Undergraduate and PG students). In addition, 150 Armed Forces personnel from three branches namely, Army, Navy and Air Force were included in the sample. From amongst students, 75 class XII students, from both rural and urban areas, were covered in the study. Care was taken to ensure representation of both male and female respondents and also students from both private and government schools were included in the study to gauge their expectations/motivation from a service and also their order of preference for

various professions. 75 Graduate and 75 Postgraduate students of both the sexes and also from urban and rural areas were included in the study. 150 respondents were selected from amongst serving and retired defence personnel. These officers were of varying seniority and rank structure, diversified socio-economic background, and educational status and from all parts of India. The detailed profile of the Defence Services personnel is presented in appendices 'A', 'B', 'C', and 'D'.

5.8 Operational Definitions

- 5.81 Motivation:** It refers to the drive and effort to satisfy a want or goal. Satisfaction refers to the contentment experienced when a want is satisfied. In other words, motivation implies a drive towards an outcome and satisfaction involves outcomes already experienced. It is the complex of forces starting and keeping a person at work in an organization. In this study, it refers to the needs and motives of the youth he considers while opting for a career.
- 5.82 Youth:** For the purpose of this study, the term refers to eligible youngsters from schools and colleges exercising their options for various careers available in the country.
- 5.83 Career:** The term refers to various professions available in the country for science and technology as well as humanities and commerce students in India as well as abroad in both Private and Public sector undertakings.
- 5.84 Armed Forces:** It is a generic term used collectively for the Indian Army (IA), Indian Navy (IN) and Indian Air Force (IAF). The term is synonymously used for the Defence Services and the Military. Members of the Armed Forces are subject to their respective Army, Navy and Air Force Acts for their discipline, conduct and service privileges aspects.

5.85. Recruitment: In the study, it refers to those set of activities, the Defence Services undertake to attract job candidates possessing the appropriate characteristics to motivate them to apply for a career. Recruitment involves seeking and attracting a pool of people from amongst qualified candidates for job. The term is erroneously used for 'Selection' and 'Employment'. Recruitment is only one of the steps in the entire employment process. Technically speaking, recruitment function precedes the selection process and it includes only finding, developing the sources of prospective employees and stimulating them to apply for jobs in an organization. Whereas, the selection is the process of finding out the most suitable candidate attracted (i.e. recruited).

5.9 Development and Description of the Research Tools

Two questionnaires—one for students and other for Defence Services personnel were developed and administered between two groups of respondents.

5.91. Questionnaire for Students: This questionnaire meant for student respondents had both structured and open-ended questions. It was aimed at finding out the degree of involvement of various individuals in the choice of their career, their order of preference for various professions available in the country, the degree of importance of various motivators affecting the choice of careers of respondents and the measures required to enchant youth to join the Armed Forces. It had total of 19 questions, while the first four questions related to motivational aspects of the research problems, the remainder 15 questions pertained to personal particulars and demographic details. The questionnaire had combination of ranking item questions, multiple choice and open-ended questions. The questionnaire is enclosed as Appendix 'E'.

5.92 Questionnaire for Defence Personnel: Like the questionnaire for students, this questionnaire too had open-ended, multiple choice and ranking item questions. It had a total of 23 questions. While the first open-ended question aimed at eliciting views of the respondents on reasons of shortfall of Officers manpower strength of the Defence Services. The second question enquired about the degree of effectiveness (Ranging from Least effective, Somewhat Effective, Quite Effective and Most Effective) of various measures employed by the Armed Forces to overcome the shortfall of officers. The third Question was an open-ended question seeking suggestions from the respondents to improve the attractiveness of the Defence Services to overcome the shortfall of Officers. The remaining 20 questions pertained to personal particulars and demographic details. This questionnaire is enclosed at appendix 'F' of this thesis.

5.93 Pattern of Analysis

5.931 Questionnaire for Students: Standard pattern of analysis involving use of Mean and Multiplication of Frequencies with the Weights assigned to various alternatives had been used within Study. For exploring the correlation of demographic factors with various issues explored within study, Chi Square Test was used. The pattern of analysis used in the study for each Question asked is explained below: -

5.9311 The First Question was Aimed at Assessing the Degree of Involvement of Various Individuals in the Choice of Career of the Student Respondents:

A four points unipolar Likert Scale having options ranging from 'Least Involved' 'Some What Involved', 'Quite Involved' to 'Highly Involved' was used in the study for calculating the scores. The weights of 1,2,3 and 4 respectively were assigned to various Degrees of Involvement. The total score for each individual who could influence like each of the – four options mentioned above (i.e. Mother, Father, Brother/Sister, Teacher, Friends, Relatives, Grand parent) was worked out. And scores of all individuals for each respondent were summed up to find out the degree of involvement of these individuals. Ranking was decided by dividing the total score by No. of respondents i.e. 225 to arrive at the cumulative total. The total score of each individual was divided by the No. of respondents to get the average and multiplying the average by 100 to get the percentage.

5.9312 Question No. 2 Related to Ranking of Various Services Available in the Country:

While the profession ranked as No. 1 out of 9 was marked as 9, the service ranked as No. 2 was marked as 8 and so on. The score for each respondent and each career was summed up to arrive at the most preferred choice corresponding to highest score. Similarly, second, third and least popular service amongst the respondents were discerned. Dividing the total score by maximum possible score and multiplying the average by 100 to get the percentage, the average score of each profession and percentage were computed.

5.9313 Question No. 3 Pertained to Degree of Importance of Various Motivators in the Choice of Career: Factors marked as 'Least Important', 'Some What Important', 'Quite Important' and 'Most Important' were graded as 1, 2, 3, and 4 respectively. The score of each factor was totaled for all respondents to find out degree of importance of each factor. While the factor scoring highest emerges, then, as the most effective motivator of the youth. The least scored factor having least score emerges as a least important motivator for the respondents. The overall average score of each factor was calculated by dividing the total score of each motivator by the number of respondents.

5.9314 Question No. 4 Related to Suggested Measures by Respondents to Improve the Attractiveness of the Defence Services: The various measures were tabulated in terms of percentage and frequency and the highest frequency measure was interpreted as the most desirable and effective measure for attracting youth. The percentage of each desirable measure was calculated by dividing the frequency by No. of respondents and multiplying the quotient by 100.

5.9315 Question No. 5 – 23 on Personal Particulars and Demographic Details: These were interpreted in terms of frequency and percentage of responses.

5.932 Questionnaire for Defence Personnel

5.9321 Question No. 1 Related to Reasons of Shortfall in the Officers' Cadre of the Defence Services.

Responses were interpreted in terms of frequency and

percentages as explained earlier.

5.9322 Question No. 2 Asked the Respondents to Indicate their Opinion Regarding Degree of Effectiveness of the Measures Employed by the Armed Forces to Overcome the Shortfall of Officers.

The opinion of the respondents was ascertained on a four-point scale ranging from 'Least Effective', 'Somewhat Effective', and 'Quite Effective' to 'Very Effective' measures. These ranks were assigned weights of 1, 2, 3 and 4 respectively. The scores of each measure for all the respondents were summed up and divided by the No. of respondents i.e. 150, to find the overall average degree of effectiveness of each measure and percentage was calculated by multiplying the average by 100. The degree of effectiveness of measures was also shown with the help of a bar graph.

5.9323 Question No.3 was an Open- Ended Question. It required the Respondents to Suggest Measures to Attract the Youth towards the Armed Forces.

The measures suggested were interpreted in terms of frequency and percentage. These were presented with the help of a bar graph.

5.10 Pilot Study: It was conducted on ten class XII students at Central School, Patna during March 2002. The study was undertaken to ascertain the effectiveness of the questionnaire developed for students. This pilot study helped the researcher to assess before hand the problems and concerns that might arise later in the full-fledged study. Based on the responses in the pilot study, question No. 2 was modified and made more comprehensive. The pilot study helped the researcher to assess the feasibility of the study. The analysis of the data obtained was done using inferential and descriptive statistics. The plan for data collection remained the same as per the pilot study because the researcher did not face any problem while conducting the pilot study.

5.11 Hindi Translation Version of the Questionnaire for Students

To facilitate students from rural areas, it was done to take care of semantic difficulties that Hindi medium students might encounter. It is enclosed at appendix 'G' of this thesis. It was translated from English to Hindi and back to English. It was pretested on a representative sample and further tested for originality by *Back Translation Method* as prescribed by Green and White (1976). In this method, *English Original* is first translated into a foreign language and then back translated into English to check for questionnaire dissimilarity.

5.12 Reliability of the Tool: The reliability of an instrument is the degree of consistency with which an instrument measures the attribute it is supposed to measure. *Cronbach alpha (Co-efficient alpha) method was employed. Co-efficient alpha produce reliability as follows:*

$$\alpha = \frac{K}{K-1} \left[1 - \frac{\sum \sigma_i^2}{\sigma_t^2} \right]$$

α = The estimate reliability.

K = The total No. of items in the test.

σ_i^2 = The variance of each individual.

σ_t^2 = The variance of total test score.

Σ = Summation

The normal range of values is between 0.0 and + 1.00 and high values reflect a higher degree of internal consistency. The reliability ranged from 0.63 to 0.81 for different items of two questionnaires.

5.13 Procedure for Data Collection

5.131 From Student Respondents: The Heads of Institutions selected for data collection were liaised with, well before the date of collection. A letter seeking their permission was handed over to the concerned institution during such a coordinating visit. The questionnaire was administered to the students by the investigator himself. The respondents were congregated in a classroom and briefed about the purpose of the study.

Table No. 5.13

Distribution of Population and Samples Drawn and the Dates on which Study was Conducted.

<u>S No.</u>	<u>Institution</u>	<u>Date of Data Collection</u>	<u>Population</u>	<u>Sample</u>	<u>% of Sample Drawn from Population</u>
1.	Central School, Andrews Ganj, New Delhi	30 Oct 2003	60	30	50%
2.	Shaheed Hemu Kalami Sarvodaya Vidyalaya, New Delhi	24 April 2002	50	25	50%
3.	GGs IP University, New Delhi and other Institutions.	25 April 2002 24 April 2002	UG-52 PG-45	UG-25 PG-35	UG- 50% PG- 77.60%
4.	Dayal Singh College, University of Delhi	15 Nov 2003	UG –60	UG-50	UG-83.30%
5.	SD Public School, Pitampura, Delhi-110085	18 Nov 2003	30	20	66.60%
6.	Shyam Lal College, Sahadara	22 Nov 2003	PG-50	PG-40	80%
4.	Armed Forces Officers* -	22 April - 30 May 02	38000	150	0.49%

Notes - * Indian Armed Forces comprise 11 Lakhs Army personnel, 1.1 Lakh Air Force personnel and 5,5000 Naval Personnel. Out of a sample of 150 Armed Forces Officers, 127, 15 and 08 were drawn from Indian Army (IA), Indian Air Forces (IAF) and Indian Navy (IN) respectively. This sample was selected on pro-rata basis to ensure a representative character.

The questionnaire was administered to the respondents by the investigator himself as per schedule. The students were assured of the confidentiality of their responses and the fact that the information would be utilized only for research study purpose. There was no time limit for completing the questionnaire. Each student took approximately 40-60 minutes.

5.132. From Defence Personnel: Armed forces personnel of all the three services of varying service bracket and rank structure were administered the questionnaire during personal visit to their offices. Some interviews were conducted during meeting with these officials and the researcher. The filled – in questionnaires were arranged to be collected from the respondents. To ensure higher response rate, the investigator handed over the questionnaires personally to the respondents and thereafter followed up to ensure timely return of the filled – in questionnaires.

5.14 Limitations: The study was confined to 375 respondents – 225 School, Undergraduate and Postgraduate students and 150 Defence Services Officers of varying seniority, rank structure and diversified socio-economic background. This limits the generalization of the findings to only the study sample. Despite that limitation, the findings are quite indicative of the broad trends.

5.15 Chi Square Test

To measure the degree of significance of relationship between the ranking of Defence Services by students respondents and their demographic features (e.g. Age group, Sex, academic performance etc) chi square test was employed. To facilitate this test ranking of Defence Services, by student respondents was grouped into 2 and 3 ranking groups. In case of three ranking groups, 1-3 ranks of Defence Services, 4-6 ranks of Defence Services and 7-9 ranks of Defence Services were considered. In case of two ranking groups of Defence Services 1-4 ranks of Defence Services and 5-9 ranks of Defence Services were considered. The frequencies of students grading Defence Services into 1-3, 4-6 and 7-9 ranks or 1-4 and 1-5 ranks were computed from Table No 6.23. The frequencies acted as observed frequencies (OF) for chi square test. Expected Frequencies (EF) was extracted from various demographic features of student respondents. Tabulating both 'OFs' and 'EFs' , chi square value for a variable was calculated as follows -

$$\text{Chi Square value, } \chi^2 = \sum \frac{(\text{OF} - \text{EF})^2}{\text{EF}}$$

Then, at given degree of freedom $\{(r-1)(c-1)\}$, in this case it was 2 or 1 for various variables and at 5% level of significance, the calculated value of chi square was compared with table value. If the calculated value of Chi Square was more than the table value of chi square, the relationship between the ranking of Defence Services, by the student respondents and the concerned demographic variable was considered significant. Otherwise, it was considered insignificant and was ignored.

5.16 Summary

This chapter presented the research approach and design setting, sample and sampling technique, development and description of tool, validity and reliability of tool, data collection technique and plan for data analysis. The Questionnaire for Students dealt with degree of involvement of various Individuals in the choice of career, ranking of various services, degree of importance of motivators while choosing a career and measures suggested overcoming shortfall of officers. The questionnaire for Defence Respondents seeks reasons for deficiency of officers, Degree of Effectiveness of various measures implemented to overcome shortfall of officers and measures improve in attractiveness of Armed Forces as a career option. Both inferential and descriptive statistical tools are employed to draw logical conclusion through both open-ended and close-ended questions. Chi Square Tests are used to establish degree of significance of relationship between ranking of Defence Services by Student Respondents and their demographic factors.

Results and Discussion

Introduction

This chapter deals with analysis of data derived from the two questionnaires, administered to Students and Defence Respondents. The analysis has been done in three parts. Part I deals with analysis of common demographic profile data of both Students and Defence Respondents. Part II dwells on four questions related to student Respondents. Question No. 1 refers to degree of involvement of various individuals in the choice of a career on a four-point scale by students. Question No. 2 deals with ranking of nine broad categories of professions and also varying sub categories within a broad category, available in our country. Question No. 3 underlines the degree importance of 13 motivators on a four-point scale. An open-ended question No. 4 elicits views of students' youth with regard to their suggested measures for improving the attractiveness of the Armed Forces in order to overcome shortfall of officers. Part III of Analysis deals with views of Defence Officers on reasons for shortfall of officers, degree of effectiveness of fourteen various adhoc recruitment measures on a four-point scale and thirdly, the measures suggested by them for improving attractiveness of Armed Forces as a career. The degree of significance of relationship between ranking of defence services by students and their demographic profile has been established through Chi Square Test. The data was analyzed in terms of frequency and percentages.

6.1 Overall Results

6.11 Part I- Analysis of Common Demographic Data of both Students and Defence Respondents and Degree of Significance of Relationship Between Ranking of Defence Services by Student Respondents and their Demographic Profile.

Data with respect to regional nativity, House Location, Religion, Caste Composition, School Classification, No. of brothers and Sisters, Gender, Age group, Academic Performance, Educational Status of parents, Family Income, Parents' occupation, Details of Serving/Retired Relatives in the Armed Forces, Details of Branches in the Armed Forces of Family Members, Details of Designation of Family Members in the Armed Forces and type of Family of both Students and Defence Respondents were analyzed, first separately and thereafter Combinedly in terms of frequency and percentage. Chi square tests to establish degree of significance of relationship between of ranking of defence services by student respondents and their demographic profile revealed significant relationship for all demographic factors.

6.12 Part II - Degree of Involvement of Individuals in the choice for a career, Ranking of various professions, Degree of Importance of Motivators and Suggested Measures for Improving Attractiveness of Armed Forces (Student Respondents).

About the Degree of Involvement of Individuals in the Choice of Career of Student Respondents, it was found that *mother is most intimately involved in the choice of career of student respondents*. Other individuals involved, *in the descending order of importance are father, friends, relatives, teacher and, sister/ brother. Grandparents are least involved in this process*. Secondly, with regard to Degree of Importance of Motivators for student Respondents '*Opportunity to*

earn a lot' is the most predominant need, followed by job security, security of self and family, prestige in society, Challenging Work, power and authority, *feeling of togetherness among fellow workers*, *opportunity to serve the nation*, *job in large metro*, *recognition and rewards*, *glamour of uniform*, *job close to home town*. *Adventurous life style enthused respondents the least*. Thirdly, ranking of various broad – categories and subcategories of professions by student respondents revealed that amongst the broad categories, *civil services were the most coveted career*. It was followed by jobs in private sector, self-employment, independent professionals, teaching, career in creative/performing arts, Computer and IT Professionals, Defence Services, public sector and others. Fourthly, amongst the important suggested measures to improve the attractiveness of Armed Forces for evolving effective recruitment policies as perceived by student respondents, *Compulsory Military Training* was the most frequently suggested measure. Other measures were improvement in *promotional prospects*, *rationalization in pay and allowances*, *organizing visits of the youth to Defence Establishments* for greater familiarization, *effective media campaign*, motivating youth through parents and teachers about recruitment into Defence Services, *liberalizing leave policy* and granting more freedom about personal life, enhancing respect for soldiers in society, *conscription* and highlighting the importance of the Defence Services in national life.

6.13 Part III – Reasons for Shortfall of Officers, Degree of Effectiveness of Measures Instituted and Improving Attractiveness of Defence Services (Defence Respondents)

Amongst the reasons cited for shortfall of officers, *subjective performance appraisal* was rated as the most important reason for shortfall of Officers. Pyramidal hierarchy and bleak promotion prospects, unrealistic pay and allowances, early retirement age, professional hazards, separation from families followed it,

unimpaired leadership in the Armed Forces, declining status of Officers vis-à-vis civilian counter parts, frequent moves of personnel, inadequate growth of children of personnel. Availability of other lucrative avenues was the least important reason for shortfall of officers. As regards the degree of effectiveness of various measures to overcome shortfall of officers, *improvement in promotion prospects* was rated as the most effective measure to overcome the shortfall of officers. Other effective measures in decreasing order of their effectiveness were *inspiring NCC Cadets to join the Defence Services, increasing intake of SSCOs, stipend for cadets at pre-commission training academies, raising Rashtriya Rifles for counter insurgency operations, encouraging recruitment of Lady Officers, increasing attachment period of newly commissioned Services officers (e.g. Army Service Corps, Ordnance Corps etc) with front-lined foot Infantry, re-employing retired officers, encouraging JCOs for enhanced responsibilities, effective media campaign, filling up vacancies of officers through Personnel Below Officers Ranks (PBOR), mobilizing Territorial Army for longer duration and diluting selection standards. Curtailment of training period was found to be the least effective measure. Measures suggested to improve the attractiveness of Armed Forces for evolving effective recruitment policies included further improvement in promotional avenues. It was most frequently suggested measure. It was followed by reservation of seats in educational institutions by waiving domicile criteria, lateral entry of Defence Officers into Civil Services, introduction of 360° performance appraisal for objectivity, an assured full career in government jobs for ex-servicemen upto the age of 60 years, constituting a separate pay commission and introducing realistic pay scale, cantonments with more family accommodation for soldiers, utilizing expertise of retired officers by appointing them suitably, introducing questions on Indian Defence in competitive examinations and sensitization of civil administration towards the problems of soldiers' families staying separately.*

Fig 6.1 Model Showing Career Motivators and Suggested Measures by Indian Youth

(1)	(2)	(3)
Degree of Involvement of Various Individuals in the Exercise of Choice for Career (In Decreasing Order of Importance)	Ranking of Professions by Student Respondents (In Decreasing Order of Importance)	Key Motivators for Students Respondents (In Decreasing Order of Importance)
<ol style="list-style-type: none"> 1. Mother. 2. Father. 3. Friends. 4. Relatives. 5. Teachers. 6. Sister/Brother 7. Grandparents. 8. <i>Others</i> <p>(a) <i>Self</i></p> <p>Motivation</p> <p>(b) <i>Girl Friends</i></p> <p>(c) <i>Celebrities</i></p>	<ol style="list-style-type: none"> 1. <u>Civil Services</u> <ol style="list-style-type: none"> (a) IAS (b) IPS (c) IFS (d) Allied Services. 2. <u>Private Sector</u> <ol style="list-style-type: none"> (a) MNC (b) Indian company 3. Self- Employed. 4. <u>Independent Professional</u> <ol style="list-style-type: none"> (a) Doctor (b) Engineer (c) Financial Expert (d) Lawyer 5. Teaching 6. <u>Career in creative/Performing Arts</u> <ol style="list-style-type: none"> (a) Journalism (b) Dance (c) Singing (d) Music (e) Painting 7. Computer/IT professional 8. <u>Defence Services</u> <ol style="list-style-type: none"> (a) IAF (b) IN (c) IA 9. Public Sector 10. <i>Others</i> <ol style="list-style-type: none"> (a) <i>Consultancy</i> (b) <i>Acting</i> 	<p><u>Motivators</u></p> <ol style="list-style-type: none"> 1. Opportunity to earn a lot. 2. Job Security. 3. Security of self and Family. 4. Prestige in society. 5. Powers and Authority. 6. Feeling of togetherness among fellow workers. 7. Challenging work 8. Opportunity to serve the Nation. 9. Job in large Metro. 10. Recognition and Rewards. 11. Glamour of Uniform. 12. Job close to Hometown. 13. Adventurous Life Style. <p><u>Suggested Measures as Perceived by Student Respondents to Overcome Shortfall of Defence Officers</u></p> <ol style="list-style-type: none"> 1. Compulsory Military Training. 2. Improve promotional prospects. 3. Rationalize Pay & Allowances. 4. Organize visits of the youth to Defence Installations for greater familiarization. 5. Effective Media campaign. 6. Motivate youth through parents and teachers about recruitment into Defence Services. 7. Liberalize leave policy and grant more freedom about personal life. 8. Respect for soldiers and their prestige in society be enhanced. 9. Conscription. 10. Highlight the importance of the Defence Services in national life

Fig 6.2 Model Showing Implications of Career Motivators of Indian Youth for Recruitment Policies of the Armed Forces (As Perceived by Defence Respondents)

(4)	(5)	(6)
Reasons for Shortfall of Officers	Degree of Effectiveness of Measures to Overcome Shortfall of	Suggested Measures to Improve Attractiveness of Armed Forces for Effective Recruitment Policies Perceived By The Defence Respondents.
<ol style="list-style-type: none"> 1. Subjective PA. 2. Pyramidal Hierarchy and bleak promotion Prospects. 3. Unrealistic pay and allowances 4. Early retirement age. 5. Professional Hazards. 6. Separation from families. 7. Authoritarian Leadership in the Armed Forces. 8. Declining status of officers Vis-à-Vis civilian Counterparts. 9. Poor growth of children of Personnel. 10. Scandalous Defence Deals. 11. Availability of other Lucrative Avenues. 	<ol style="list-style-type: none"> 1. Improve promotion prospects. 2. Motivate NCC cadets to join the Defence. 3. Increase intake of SSCOs. 4. Stipend at Pre-commission Training Academies. 5. Raising Rashtriya Rifles for CI operations. 6. Encouraging Recruitment of lady officers. 7. Increasing Attachment period of newly commissioned services officers with Infantry. 8. Re-employing retired officers. 9. Encouraging JCOs for enhanced responsibilities. 10. Effective Media campaign. 11. Filling up vacancies of officers through PBOR. 12. Mobilizing TA for longer duration. 13. Diluting selection standards. 14. Curtailing pre-commission training period. 	<ol style="list-style-type: none"> 1. Further improvement in promotional avenues. 2. Reservation of seats in Educational Institutions by waiving domicile criteria. 3. Lateral Entry of Defence officers into civil services 4. Introduce 360 Degree performance appraisals for objectivity. 5. A full career in government for ex-servicemen up to the age of 60 years. 6. Separate pay commission and realistic pay scales. 7. Cantonments with more family accommodation for soldiers. 8. Expertise of retired officers be utilized by appointing them suitably. 9. Introduction of questions on Indian Defence in all competitive Examinations. 10. Civil Administration be sensitized towards problems of soldiers' families staying separately.

Ranking of Defence Services as a Career by Student Respondents and their Demographic Profile

6.21 Ranking of Defence Services by Student Respondents was grouped into three categories and two categories depending on the presentation of data in demographic profile. e.g. if the data on regional nativity of student respondents is arranged in three categories (Expected Frequencies), then ranking of Defence Services can also be grouped into three categories (Observed Frequency). The first category comprises those students who rank Armed Forces between No. 1 and No. 3 profession. The second category consists of those students who rank Armed Forces between No. 4 and No. 6 profession and the third category comprises those students who grade Defence Services between No. 7 and No. 9 profession. Their frequencies are as under: -

Table No. 6.21 Frequency Distribution of Ranking of Defence Services into Three Categories by Student Respondents.

Ser No.	Ranking of Defence Services by Student Respondents	Frequency out of 225 Student Respondents
(a)	(b)	(c)
1.	Between No. 1 to and 3 Profession	47
2.	Between No. 4 to and 6 Profession	79
3.	Between No. 7 to and 9 Profession	99
	Total Frequency 'N'	225

Source - Table No. 6.23 on Page No. 180.

- 6.22** The ranking of Defence Services can be grouped into two categories (1-5 and 6 – 9) if the data on demographic profile of students appears in two groups e.g. if the data on parents' occupation of student respondents is presented in two groups as Armed Forces and civil services (Observed Frequencies), then ranking of Defence Services by student respondents can also be modified accordingly to appear into two groups (Expected Frequencies). This is done to facilitate chi square test as follows: -

Table 6.22 Frequency Distribution of Ranking of Defence Services into Two Categories by Student Respondents.

S No.	Grouping of Ranking of Defence Services	Frequency of Student Respondents
(a)	(b)	(c)
1.	Between No. 1 and No. 5 Profession	105
2.	Between No. 6 and No. 9 Profession	120
	Total Frequency 'N'	225

Source - Table No. 6.23 on Page No. 180.

- 6.23 Computation of Calculated Value of Chi Square (x^2) at 5 % Level of Significance and at Required Degree of Freedom (2 if Ranking of Defence Services is in three groups and 1 if Ranking of Defence Services is in two Groups)**

6.231 Tabulate Ranking of Defence Services as Observed Frequencies (OF).

6.232 Tabulate Various Facts of demographic profile of student respondents as Expected Frequencies (EF).

6.233 Ensure that Observed Frequencies (OF) and Expected Frequencies are tabulated in such a manner so as to make a perfect chi square (χ^2) by Grouping ranking of Defence Services by student respondents in 2 or 3 categories in consonance with presentation of demographic profile of students in 2 – 3 categories.

6.234 Compute chi square (χ^2) from the following formula

$$\chi^2 = \sum \frac{[(OF-EE)^2]}{EF}$$

6.235 At a certain Degree of Freedom (d.f) and at 5 % level of significance, compare the calculated value of χ^2 with table value of χ^2 . If the computed value of chi square (χ^2) is higher than Table value of χ^2 then the Null Hypothesis is rejected. And it shows the significance of relationship between the ranking of Defence Services by Student respondents and the considered demographic feature. Otherwise, if the computed value of chi square (χ^2) is less than calculated value of chi square, then null hypothesis is accepted i.e. there is no significance of relationship between ranking of Defence Services by student respondents and the concerned demographic variable of student respondents.

Inference: Considering above two Tables No. 6.21 and 6.22 above and Table No.6.33 on Page No.180, it is seen that students do not accord the same priority to the Armed Forces as they do for other services. They accord lower priority to Defence Services. Hence, hypothesis H_0 is rejected.

Part I – Analysis of Results Based on Demographic Data (Students and Defence Respondents)

6.3 Regional Nativity of Students and Armed Forces Respondents

6.31 Students: The bulk of the students (9.33%) were from the most populous states i.e. UP. There was almost proportionate representation from other states as well.

6.32 Defence Personnel: 12% respondents were from UP followed by AP (7.33%), Bihar (7.33%) and others.

Part I – Analysis of Common Demographic Data of Student and Defence Respondents

**Table No. 6.3
Regional Nativity of Student and Defence Respondents**

S No.	State	Students		Defence Personnel		Overall Statistics	
		Frequ ency (f)	% of Total Sample	Frequ ency	% of Total Sample	Freq uen cy (C) + (e)	% of (c+e)
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)
1.	Delhi	12	5.33	10	6.66	22	5.86
2.	U P	21	9.33	14	12.0	35	9.33
3.	Bihar	14	6.22	11	7.33	25	6.66
4.	Punjab	08	3.55	10	6.66	18	4.80
5.	Haryana	10	4.44	07	4.66	17	4.53
6.	J & K	06	2.66	04	2.66	10	2.66
7.	Rajasthan	11	4.88	07	4.66	18	4.80
8.	M P	17	7.55	09	6.0	26	6.93
9.	Maharashtra	19	8.44	05	3.33	24	6.4
10.	Karnataka	15	6.66	08	5.33	23	6.13
11.	Tamil Nadu	14	6.22	07	4.66	21	5.60
12.	A P	18	8.0	11	7.33	29	7.73
13.	W Bengal	15	6.66	08	5.33	23	6.13
14.	Sikkim	04	1.77	04	2.66	08	2.13
15.	N E States	18	8.0	07	4.66	25	6.66
16.	Kerala & Lakshadweep	06	2.66	07	4.66	13	3.46
17.	Goa	04	1.77	08	5.33	12	3.20
18.	Jharkhand	03	1.33	04	2.66	07	1.86
19.	Uttaranchal	04	1.77	06	4.0	10	2.66
20.	Chhattisgarh	06	2.66	03	2.0	09	2.40
	Total Frequency 'N'	225	100%	150	100%	375	100%

6.33 Degree of Significance of Relationship between Ranking of Defence Services by Student Respondents and their Regional Nativity.

6.331 Refer table No. 6.23 on page 180 and table No. 6.3 above. For evaluating significance of relationship, students were divided into three broad regions as follows:

Table No. 6.331 Grouping of Regions of India

S No.	Main Regions	Frequency of Student Respondents 'f'
(a)	(b)	(c)
1.	Northern India (J&K, Punjab, Harayana, HP, UP, Delhi, Rajasthan, Uttaranchal, Bihar, Jharkhand)	89
2.	Central India (Gujarat, Maharashtra, MP, West Bengal, Orissa, Sikkim, Chatisgarh and Seven NE States)	79
3.	Southern India (AP, Karnatka, TN, Goa, Kerla and Lakshadeep)	57
	Total Frequency 'N'	225

6.332 Comparing Grouping of Ranking of Defence Services as Observed Frequency (OF) and Regional Nativity as Expected Frequency (EF), X^2 is Calculated as 50.76 (Refer Appendix 'T' and Table No. 6.332 on Page No. 327)

6.333 Inference: The table value of X^2 for 2 df at 5% level of significance was found 5.991. Hence, computed value of X^2 was much higher than table value. Hence, null hypothesis, H_{02} was rejected. That is to say, Regional Nativity of student respondents has significant relationship with ranking of Defence Services by them.

6.4 House Location wise Distribution of Respondents

Table No. 6.4
Location Based Distribution of Respondents

S No.	House Location	Students		Defence Personnel		Overall Statistics	
		Frequency	% of Total 150 Students	Frequency	% of Total 150 DP	Students + DP 'f'	% of Students + DP
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)
1.	Metropolitan Cities	94	41.77	28	18.66	122	32.53
2.	Cities	65	28.88	38	25.33	103	27.46
3.	Towns	28	12.44	51	34.0	79	21.06
4.	Villages	38	16.88	33	22.0	71	18.93
	Total Frequency 'N'	225	100%	150	100%	375	100%

Abbreviation f = Frequency

DP = Defence Personnel

6.41 Students. 41.77%, 28.88%, 12.44% and 16.88% belonged to metros, cities, towns and villages respectively. It was also observed that *students belonging to villages and towns accorded higher preference to Defence Services* in the choice of their career than students from metropolitan cities and cities.

6.42 Defence Personnel. While 34% and 22% belonged to towns and villages respectively, 28.69% and 26.42% had their family roots in metropolitan cities and cities respectively.

6.43 Degree of Significance of Relationship Between Ranking of Defence Services by Student Respondents and the Location of their House.

Table No. 6.43 Grouping of House Location wise Distribution of Respondents

S No.	House Location	Frequency of Student Respondents 'f'
(a)	(b)	(c)
1.	Metros	94
2.	Cities and Towns	93
3.	Villages	38
	N	225

6.44 Computation of X^2 : $X^2 = 123.52$ (Refer Appendix 'T' and Table No. 6.44 on Page No. 327)

6.45 Inference: The calculated value of x^2 ie 123.52 was higher than table value of x^2 for 2 df at 5% level of significance i.e. 5.991. Hence null hypothesis, H_0 was rejected. It could be concluded that there was a significant relationship between ranking of Defence Services and location of their houses. Since bulk of the student optees for Armed Forces are from towns and villages, the *media campaign for promoting recruitment should target youth from such areas rather than urban youth.*

6.5 Religion Wise Distribution of Respondents

6.51 Students: 48.88%, 3.11%, 14.22 % and 33.77% of respondents belonged to Hinduism, Christianity, Sikhism and Islam respectively. Bulk of the students who accorded higher priority to the Armed Forces as a career option were from Hinduism and Sikhism religion.

6.52 Defence Personnel: 41.33%, 18%, 26% and 14% belonged to Hinduism, Christianity, Sikhism and Islam respectively.

Table No. 6.5
Religion-Based Distribution of Respondents

S No.	Religion	Students		Defence Personnel		Overall Statistics	
		Frequency	% of Total 225 Students	Frequency	% of Total 150 DP	Students + DP 'f'	% of (Students + DP)
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)
1.	Hinduism	110	48.88	62	41.33	172	45.86
2.	Christianity	07	3.11	27	18.0	34	9.06
3.	Sikhism	32	14.22	40	26.66	72	19.20
4.	Islam	76	33.77	21	14.0	97	25.86

6.53 Significance of Relationship Between Ranking of Defence Services by Student Respondents and their Religion.

6.531 Refer Table No.6.23 on Page No. 180 and Table No. 6.5 as given above.

S No.	Religion	Frequency of Student Respondents 'f'
(a)	(b)	(c)
1.	Hinduism incl Sikhism	142
2.	Christianity	07
3.	Islam	76
	N	225

Table No. 6.532 Computation of χ^2 : $\chi^2 = 811.08$ (Refer Appendix 'T' and Table No. 6.532 on Page No. 328).

6.533 Inference: The calculated value of χ^2 i.e. 811.08 is much higher than table value for 2 d.f at 5% level of significance i.e. 5.991. Hence, there is significant relationship between ranking of Defence Services and religion of student respondents. Null hypothesis, H_0 , is therefore rejected. Pure Caste/Region regiments in Indian Army i.e.. Sikh Regiment, Jat Regiment, Punjab Regiment etc have been a source of motivation for soldiers. In view of their distinct identity, caste and region have been a battle – winning factor. However, Secular nature of officers Corps in Defence Services has been a great binding force for the men. *Our recruitment policy for Personnel Below Officer Rank (PBOR) must continue to attract youth from erstwhile martial races from Punjab, Rajasthan, UP and Bihar.*

6.6 Caste Composition Based Distribution of Respondents

Table No. 6.6

Caste Composition Based Distribution of Respondents.

Ser No.	House Location	Students		Defence Personnel		Overall Statistics	
		'f'	%	'f'	%	Students + DP 'f'	% of Students + DP
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)
1.	SC	26	11.55	01	0.66	27	7.2
2.	ST	42	18.66	11	7.33	53	14.13
3.	OBC	16	7.11	04	2.66	20	5.33
4.	General	141	62.66	134	89.33	275	73.33
	Total Frequency 'N'	225	100%	150	100%	375	100%

- 6.61 Students:** 11.55%, 18.66%, 7.11% and 62.66% belonged to SC, ST, OBC and general Category respectively. It was observed that percentage of students from SC/ST/OBC category who accorded higher priority to Defence Services, as their career option was less than students from general category. As there is no reservation of seats for SC, ST and OBC category in the Defence Services, they might be looking for avenues of employment providing them preferential treatment.
- 6.62 Defence Personnel:** Only 0.66%, 7.33% and 2.66% belong to SC, ST and OBC category respectively while the rest belonged to the general category.
- 6.63 Degree of Significance of Relationships Between Ranking of Defence Services by Students Respondents and their Caste Composition.**

Table No. 6.63 Grouping of Castes

S No.	Category	Frequency
(a)	(b)	(c)
1.	SCs and STs	68
2.	OBCs	16
3.	General	141
	N	225

- 6.64 Computation of χ^2 :** $\chi^2 = 267.05$ (Refer Appendix 'T' and Table 6.64 on Page No. 328).

6.65 Inference: The calculated value χ^2 i.e. 267.05 is much higher than table value of χ^2 for 2 d.f. at 5% level of significance. Hence, there is significant relationship between ranking of defence services by student respondents and their SCs, STs, OBCs and General category affiliations. Therefore, null hypothesis, H_02 is rejected. In order to ensure intake of high quality youth in the Armed Forces, secular policies of recruitment must continue. The Defence Services can ill – afford to dilute their standards by providing for reservations especially in their officers’ cadre.

6.7 Classification as per Type of School of Respondents

6.71 Students: 33.77%, 31.55%, 25.33% and 9.33% belonged to private schools, central school, state government schools and other schools respectively. It was revealed that bulk of the optees for Defence Services who accorded higher priority to Defence Services as their career choice were from Central School and State Government School. Students from private schools had a preference for jobs in MNC, independent professions etc.

6.72 Defence Personnel: 20%, 14%, 43.33% and 22.66% belonged to private schools, Central School, State Government School and other Schools respectively.

Table No. 6.7

Classification as per Type of Schools

Ser No.	Types of School	Students		Defence Personnel		Overall Statistics	
		'f'	%	'f'	%	'f' (c+e)	% of (c+e)
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)
1.	Private School (e.g. Public School)	76	33.77	30	20.0	106	28.26
2.	Central School	71	31.55	21	14.0	92	24.53
3.	State Govt School	57	25.33	65	43.33	122	32.53
4.	Others (e.g. Sainik School etc)	21	9.33	34	22.66	55	14.66
	Total Frequency 'N'	225	100%	150	100%	375	100%

6.73 Degree of Significance of Relationship Between Ranking of Defence Services by Student Respondents and Their Types of School Wise Classification (Refer Table No. 6.23 on page No. 180 and 6.7 as given above)

Type of School wise Classification of Student Respondents

Table No. 6.73

S No.	Type of School	'f'
(a)	(b)	(c)
1.	Private School	76
2.	Govt School including State and Central Govt Schools	128
3.	Others	21
	N	225

6.74 Computation of χ^2 : $\chi^2 = 319.52$ (Refer Appendix 'T' and Table No. 6.74 on Page No. 329).

6.75 Inference: The calculated value of x^2 is much higher than table value of x^2 for 2 d.f at 5% level of significance. There is significant relationship between ranking of Defence Services by student respondents and their type of school attended by them. Hence, null hypothesis H_02 was rejected. Media campaign for the Armed Forces should be targeted at youngsters studying at Central School and State Govt School. This will help attract youth towards Defence Services in a greater number for favourable recruitment ratio and wider choice in the selection process.

6.8 No. of Brothers of Respondents – Wise Distribution

6.81 Students: 41.33%, 56%, 2.66% had none, one and two brothers respectively. It was revealed that students *who had one or more brothers in the family tend to accord higher priority to the Armed Forces as their career option than those student respondents who had no other male siblings in the family.*

6.82 Defence Personnel: 8.60%, 74.60%, 10% and 6.66% had none, one, two, three or more brothers respectively. It was found that bulk of respondents had two brothers.

Table No. 6.8

No. of Brothers of Respondents Based Distribution

Ser No.	No. of Brothers	Students		Defence Personnel		Overall Statistics	
		'f'	%	'f'	%	'f' (c+e)	% (c+e)
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)
1.	Nil	93	41.33	13	8.66	106	28.26
2.	1	126	56.0	112	74.66	238	63.46
3.	2	06	2.66	15	10.00	21	5.60
4.	3 or More	Nil	0	10	6.66	10	2.66
	Total Frequency 'N'	225	100%	150	100%	375	100%

6.83 Relationship Between Ranking of Defence Services by Student Respondents and Number of other Male Siblings in the Family.

6.831 Grouping of No. of Brothers. Refer Table 6.8 as given above.**Table No. 6.831 Grouping of No. of Brothers of
Student Respondents**

Ser No.	No. of Brothers	f
(a)	(b)	(c)
1.	Nil	93
2.	1	126
3.	2 or More	06
	N	225

**6.832 Computation of χ^2 : $\chi^2 = 1481.78$ (Refer Appendix 'T' and
Table No. 6.832 on Page No. 329).**

6.833 Inference: The computed value of χ^2 being higher than table value shows significant relationship between Ranking of Defence Services by student respondents and their number of brothers. Hence, null hypothesis, $H_0 3$, is rejected. *Emergence of single child norm has become a great deterrent to such families to permit their only son/daughter to venture into the Armed Forces. Families with two or more children in towns/villages provide better target for media campaigners to attract youth towards Armed Forces.*

6.9 No. of Sisters – wise Distribution of Respondents

6.91 Students: 52%, 32%, 10.22% and 5.77% had none, one, two, three or more sisters respectively. It was seen that those respondents who had one or more sisters in the family accorded higher priority to the Armed Forces as a career than the respondents who had none.

- 6.92 Defence Personnel:** 6%, 58%, 20.66% and 15.33% had none, one, two, three or more sisters respectively.

Table No. 6.9

Distribution Based on No. of Sisters

Ser No.	No. of Sisters	Students		Defence Personnel		Overall Statistics	
		'f'	%	'f'	%	'f' (c+e)	% (c+e)
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)
1.	Nil	117	52.0	09	6.0	126	33.60
2.	1	72	32.0	87	58.0	159	42.40
3.	2	23	10.22	31	20.66	54	14.40
4.	3 or More	13	5.77	23	15.33	36	9.60
	Total Frequency 'N'	225	100%	150	100%	375	100%

- 6.93 Relationship Between Ranking of Defence Services by Student Respondents and No. of their Sisters. Refer Tables 6.9 above.**

6.931 Grouping of Data Based on No. of Sisters.

Table No. 6.932

No. of Sisters of Student Respondents

Ser No.	No. of Sisters	'f'
(a)	(b)	(c)
1.	Nil	117
2.	1	72
3.	2 or More	36
	N	225

- 6.933 Computation of χ^2 : $\chi^2 = 152.81$ (Refer Appendix 'T' and Table No. 6.933 on Page No. 330).**

6.932 Inference: The calculated value of χ^2 i.e. 152.81 being higher than table value of χ^2 for 2 d.f at 5% level of significance i.e. 5.991, there is significant relationship between ranking of Defence Services by student respondents and their No of sisters. Hence, null hypothesis, H_0 3 is rejected.

6.10 Gender-wise Distribution of Respondents

6.101 Students: 64% were males and 36 % females. It was noticed that males accord higher priority to Defence Services as their career choice than female students.

6.102 Defence Personnel. 85.33% males and 14.66% females.

Table 6.10 Gender wise Distribution of Respondents

Ser No.	Gender	Students		Defence Personnel		Overall Statistics	
		'f'	%	'f'	%	'f'	%
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)
1.	Males	144	64.0	128	85.33	272	72.53
2.	Females	81	36.0	22	14.66	76	27.46
	Total	225	100%	150	100%	375	100%

6.103 Degree of Significance of Relationship between Ranking of Defence Services by Student Respondents and their Gender.

6.1031 Based on Table 6.10 as given above and Table 6.23 on Page No. 180.

6.1032 Grouping of Ranking of Defence Services in two groups
Table 6.1032 Grouping of Ranking of Defence Services

S No.	Grouping of Ranking of Defence Services	'f'
(a)	(b)	(c)
1.	Between No1 and No5 Profession	96
2.	Between No6 and No9 Profession	129
	N	225

6.1033 Computation of χ^2 : $\chi^2 = 58.70$ (Refer Appendix 'T' and Table No. 6.1033 on Page No. 330).

6.1034 Inference: The Calculated value of χ^2 being higher than table at 1 d.f and 5% level of significance, there is significant relationship between ranking of Defence Services and their Genders. Hence, null hypothesis, H_0 3 is rejected. Armed Forces was exclusive preserve of the men in the Indian Society except Armed Forces Medical and Nursing Services. *Now it has opened doors to the females also in supporting Arms and Services of Army, Navy and IAF since 1992. Our recruitment policies in the Armed Forces need to be made more amenable for entry of female students into suitable appointments of various Arms and Services like US Defence Services or any other developed Army.*

6.11 Age Group-Wise Distribution of Respondents

- 6.111 Students:** 62.22% of student respondents were in the age group of 15 – 20 years and the balance 37.77% in the age bracket 21-25 years. Students in the younger age group had accorded higher preference for career in the Defence Services.
- 6.112 Defence Personnel:** Bulk of them i.e. 26% belonged to the age group of 21-25 years, 14% to 26-30 years, 27 % to 31-35 and 1.33 % to 61 years and above.

Table No. 6.11

Age Group-Wise Distribution of Respondents

S No.	Age Group	Students		Defence Personnel		Overall Statistics	
		'f'	%	'f'	%	'f'	%
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)
1.	15-20	140	62.22	Nil	0	140	37.33
2.	21-25	85	37.77	26	17.33	111	29.60
3.	26-30	Nil	0	14	7.33	14	3.73
4.	31-35	Nil	0	27	18.0	27	7.20
5.	36-40	Nil	0	39	26.0	39	10.40
6.	41-45	Nil	0	18	12.0	18	4.80
7.	46-50	Nil	0	10	6.66	10	2.66
8.	51-55	Nil	0	11	7.33	11	2.93
9.	56-60	Nil	0	03	2.0	03	0.80
10.	61 & Above	Nil	0	02	1.33	02	0.53

Note: -For Calculating % of students securing I, II & III division in X, XII, UG and PG class, (a) it may be noted that 225 students have passed class X, 150 students class XII, 75 students have passed graduation. PG students are yet to clear their PG examination.

6.113 Degree of Significance of Relationship Between Ranking of Defence Services by Student Respondents and their Age Group

6.1131: Refer Table 6.23 on Page 180.

6.1132: Frequency Distribution of Age – Group of Student Respondents

Table No. 6.1132

Frequency Distribution of Students

S No.	Age Group	'f'
(a)	(b)	(c)
1.	15-20	140
2.	21-25	85
	N	225

6.1133: Computation of χ^2 : $\chi^2 = 23.16$ (Refer Appendix 'T' and Table No. 6.1133 on page No. 331).

6. 1134: Inference: The calculated value of x^2 being higher than table value, there is significant relationship between ranking of Defence Services and their age group. Hence, null hypothesis H_0 3 is rejected. *Younger students at school stage and during early college life accorded higher preference to a career in the Defence Services and to factors like adventurous life style, feeling of togetherness among fellow workers and glamour of uniform. It may be inferred that to develop highly motivated soldiers in the Defence Services, maximum younger age group students at XII level should be encouraged for recruitment. 'Catch them young' should be the nucleus of our recruitment policies in the Armed Forces.*

6.12 Academic Performance Wise Distribution of Respondents.

6.121 Students: 58.66 % secured first division in class X, 68.23 % in class XII and 97.14% in Graduation.

6.122 Defence Personnel: Only 32%, 18%, 11.33 % and 13.04% Officers had secured first division in class X, XII , Graduation and at PG level respectively.

Table No. 6.12
Academic Performance-wise Distribution of Respondents

S No	Class	Students									Defence Personnel								
		Division									Division								
		I			II			III			I			II			III		
		F	%	N	F	%	N	F	%	N	F	%	N	F	%	N	F	%	N
1.	X	132	58.66		36	24	17.33	39	17.33	225	48	32.0	57	38.0	45	30.0			150
2.	XII	102	68.23		10	11.76	20.0	30	20.0	150	27	18.0	73	48.66	50	33.33			150
3.	Graduates	73	97.14		01	2.85	Nil	Nil	0	75	17	11.33	99	66.0	34	22.66			150
4.	PG	-	-		-	-	-	-	-	-	03	13.04	16	69.56	04	17.39			23

Abbreviation: -

F - Frequency

N- Total Frequency

(Part-1)

6.123 Relationship Between Ranking of Defence Services by Student Respondents and their Academic Performance.

6.1231 Ref Table 6.902.

6.1232 Computation of χ^2 : $\chi^2 = 69.17$ (Refer Appendix 'T' and Table No 6.1232 on page No.331)

6.1233 Inference: The calculated value of χ^2 being higher than table value, the relationship is significant. Hence, null hypothesis, H_0 is rejected. *The youth with brilliant academic records had preference for careers other than the Defence Services. Mediocre youth with second division and below have greater inclination to accord higher priority to Defence Services in their career choice. Average academic performance of defence personnel testifies this fact. Possibly, academically average youth with a balanced personality constitute a larger percentage of officers' cadre in the Armed Forces.*

6.13 Educational Status of Parents of Respondents.

6.131 Students: 26.44% Parents were matriculates or less, 51.77% graduates and 24% PG. It was seen that the students with parents having lower academic qualifications accord higher priority to the Defence Services as career option than those students with graduate or PG parents.

6.132 Defence Personnel: 51.66% Parents were Graduates, 33.16% Matriculates or less and 15.16 % PG or higher.

Table 6.13 Educational Status of Parents of Respondents
Educational Status of Parents of Respondents

S No	Educational Status of Parents	Students			Defence Personnel			Overall Statistics		
		F	M	N	F	M	N	F	M	N
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(n)
1.	Matriculation or Less	42	77	119	26.44	47	73	120	40.0	239
2.	Graduate	108	125	233	51.77	86	69	155	51.66	388
3.	P G & Above	75	23	108	24.0	17	08	25	8.33	123
	Total	225	225	450	100%	150	150	300	100%	750
										31.86
										51.73
										16.40
										100%

Abbreviation: -

F = Father
N = Total Frequency
M = Mother

6.133: Relationship Between Ranking of Defence Services by Student Respondents and Educational Status of Parents.

6.1131 Father of Respondents: Compute χ^2 : $\chi^2 = 16.055$
(Refer Appendix 'T' and Table No 6.1331 on Page No.332)
The calculated value of χ^2 being higher than table value, there is significant relationship between two variables.

6.1332 Mother of Student Respondents. Compute χ^2 : $\chi^2 = 279.73$ (Refer Appendix 'T' and Table No 6.1332 on Page No.332)

6.1333 Inference: The calculated value of χ^2 being higher than table value, the relationship between ranking of Defence Services by student respondents and their parents' educational status is significant. Hence, the null hypothesis H_0 is rejected. Comparing the above two calculated values of χ^2 , the degree of significance of relationship between ranking of Defence Services and educational status of mother of student respondents is more significant than their fathers' educational status. *Media campaign should be directed at rural parents with modest academic qualification.*

6.14 Family's Income of Respondents

6.141 Students: 13.33% had monthly income of Rs 5000/-, 39.11% in the range of Rs 5001 - 10,000/-, 38.66% in the income bracket of 10,001 – 20,000/- and only 8.88% had income above Rs 20,001/- . It was found that students in the lower middle-income group accorded higher preference to Defence Services as a career option than the students of upper class.

(Part-1)

6.142 Defence Personnel: Bulk of the respondents i.e. 54% were in the income group of 10,001 /- 20,000/-.

Table No. 6.14

Family's Income of Respondents

Ser No.	Income Group (In Rupees)	Students' Parents		Defence Personnel		Overall Statistics	
		'f'	%	'f'	%	'f'	%
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)
1.	Up to 5000	30	13.33	Nil	0	30	8.0
2.	5001-10,000	88	39.11	Nil	0	88	23.46
3.	10,001-20,000	87	38.66	81	54.0	168	44.80
4.	20,001 & Above	20	8.88	69	46.0	89	23.73
	Total	225	100%	150	100%	375	100%

6.143 Relationship between Ranking of Defence Services by Students Respondents and Family's Income of Respondents.

6.1431 :Refer table No.6.14.

6.1432 :For the purpose of analysis, the income group of respondents' families was grouped into three categories:

6.14321: Upto Rs 10,000/-	- 118
6.14322: Rs 10,001 –Rs 20,000/-	- 87
6.14333: Rs 20,001 & above	- 20
Total	225

6.1433: Compute χ^2 : $\chi^2 = 355.50$ (Refer Appendix 'T' and Table No. 6.1433 on Page No. 333)

6.1434: Inference: The Calculated value of χ^2 being higher than table value, the relationship is significant. Hence null hypothesis, H_0 is rejected. Media campaign in the Armed Forces should

target students belonging to lower income group. Such candidates, it is observed, accord higher priority to Armed Forces as a career option.

6.15 Parents Occupation of Defence Respondents Refer Tables 6.15 and 6.16.

6.151 General: Both students and Defence respondents had their fathers in varied occupations ranging from teaching, Civil Services, Defence Services to subordinate Services of Group C and D. While 48.66% mothers of defence respondents were housewives, student respondents had only 34.66% mothers as house wives.

Table No. 6.15
Father's Occupation of Students and Defence Respondents

Ser No.	Vocations	Students		Defence Personnel		Overall Statistics	
		'f'	Cf	%	'f'	Cf	%
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)
1.	Teaching	21	21	9.33	07	7	4.66
2.	IAS	14	35	6.0	03	10	2.0
3.	IPS	19	54	8.66	04	14	2.66
4.	Indian Foreign Service	5	59	2.00	01	15	0.66
5.	Allied Services	16	75	7.33	03	18	2.0
6.	Army Officers	11	86	4.66	11	29	7.33
7.	Indian Navy Officers	5	91	2.0	07	36	4.66
8.	IAF Officers	3	94	1.33	08	44	5.33
9.	Merchant Navy	7	101	3.33	01	45	0.66
10.	Public Sector	9	110	4.00	03	48	2.0
11.	Private Sector	19	129	8.66	08	56	5.33
12.	PCS	15	144	6.66	10	66	6.66
13.	Indian Railways	06	150	2.66	07	73	4.66
14.	Self Employed	07	157	3.33	10	83	6.66
15.	Independent Professional (Doctor/Engineer/Lawyer/ Financial Expert)	09	166	4.0	11	94	7.33
16.	Agriculture	05	171	2.0	17	111	11.33
17.	IT Professional	05	176	2.0	03	114	2.0
18.	Subordinate Services (Group C & D)	12	188	5.33	11	125	7.33
19.	MNC	06	194	2.66	02	127	1.33
20.	NGO	03	197	1.33	03	130	2.0
21.	Media	06	203	2.66	04	134	2.66
22.	Creative/Performing Arts	05	208	2.0	05	139	3.33
23.	Others (other than Above e.g. Paramedical Staff)	17	225	8.0	11	150	7.33
	Total 'f'		225	100%		150	100%
						375	100

6.152 Relationship between Ranking of Defence Services by Student Respondents and their Father's Occupation

6.1521 Refer Table 6.15

6.1522 Categorize available 23 professions in two groups – Defence Services and Civil Services to facilitate formation of Chi-Square.

6.1523 Computation of Chi-Square: $X^2 = 425.16$ (Refer Appendix 'T' and Table No. 6.1523 on Page No.333)

6.1524 Inference: The relationship is Significant. Hence, null hypothesis H_0 4 is rejected.

6.16 Relationship Between Ranking of Defence Services by Student Respondents and their Mothers' Occupation.

6.161 Refer Table No. 6.9053.

6.162 For ease of making chi-square, group various professions of Mothers into two categories – housewife and other vocations.

Table No. 6.16 (Part-I)

Mother's Occupation of Students and Defence Respondents

Ser No.	Vocations	Students			Defence Personnel			Overall Statistics	
		'f' (c)	Cf (d)	% (e)	'f' (f)	Cf (g)	% (h)	'f' (i)	% (j)
(a)	(b)	62	62	27.55	13	13	8.66	75	20.0
1.	Teaching	78	140	34.66	73	86	48.66	151	40.26
2.	House Wife	04	144	1.77	03	89	2.0	07	1.86
3.	Doctor	06	150	2.66	07	96	4.66	13	3.46
4.	Nurse	02	152	0.88	03	99	2.0	05	1.33
5.	Lawyer	03	155	1.33	03	102	2.0	06	1.60
6.	Singing	05	160	2.22	01	103	0.66	06	1.60
7.	Music	02	162	0.88	01	104	0.66	03	0.80
8.	Dance	06	168	2.66	03	107	2.0	09	2.40
9.	Painting	11	179	4.88	04	111	2.66	15	4.00
10.	Journalism	16	195	7.11	18	129	12.0	34	9.06
11.	Subordinate Services (Group 'C' & 'D')	05	200	2.22	03	132	2.0	08	2.13
12.	Private Sector	06	206	2.66	03	135	2.0	09	2.40
13.	Public Sector	07	213	3.33	02	137	1.33	09	2.40
14.	NGO	04	217	1.77	05	142	3.33	09	2.40
15.	Engineer	08	225	3.55	08	150	5.33	16	4.26
16.	Others								
	Total 'f'	225		100	150		100%	375	100

Abbreviation

'f' =

Frequency

'cf' =

Cumulative Frequency

6.163 Computation of x^2 : $X^2 = 2.15$ (Refer Appendix 'T' and Table No. 6.163 on Page No. 334)

6.164 Inference: The Computed value of x^2 is 14.29, which is more than table value of x^2 at 1 d.f and 5% level of significance. *Hence, there is significant relationship between ranking of Defence Services by student respondents and their mother's occupation. Hence, null hypothesis $H_0 4$ is rejected.*

6.17 Details of Serving/Retired Relatives of Respondents in the Armed Forces

Refer Table 6.17

6.171 General: Only 30.67% of student respondents had relatives in the Defence Services. Defence respondents had 70.67% of their relatives in the Armed Forces. It is seen that student respondents who had relatives in the Armed Forces accorded higher preference to the Armed Forces as their career choice, possibly due to higher level of awareness about the Defence Services.

Table No. 6.17

Details of Serving/Retired Relatives of Respondents in the Armed Forces

S No	Family Members	Students		Defence Personnel		Overall Statistics	
		'f'	%	'f'	%	'f'	%
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)
1.	Father	18	8.0	31	20.66	49	13.06
2.	Mother	11	4.88	13	8.66	24	6.40
3.	Sister	04	1.77	08	5.33	12	3.20
4.	Brother	14	6.22	38	25.33	52	13.86
5.	Others (e.g. Uncle)	22	9.77	16	10.66	38	10.13
6.	Respondents without relatives in the Armed Forces	156	69.33	44	29.33	200	53.33
	Total	225	100	150	100%	375	100

6.712 Relationship Between Serving/Retired Relatives of Student Respondents and the Ranking of Defence Services

6.1721 Refer Table No. 6.17

6.1722 Classify family members of student respondents into three groups – parents (father & mother), siblings (sister and brother) and others, and students without relatives in the Defence Services.

6.1722 Computation of X^2 : $X^2 = 70.01$ (Refer Appendix 'T' and Table No. 6.1723 on page No. 334)

6.1724 Inference: The calculated value of x^2 being higher than table value, the relationship is significant. Hence, null hypothesis, H_0 is rejected. It is seen that student respondents who had relatives in the Armed Forces accorded higher preference to the Armed Forces as their career choice, possibly due to higher level of awareness about the Defence Services.

6.18 Details of Branches in the Armed Forces of Family Members of Respondents. Refer Table 6.907

Table No. 6.18
Details of Branches in the Armed Forces of Family
Members of Respondents

S No.	Branches	Students		Defence Personnel		Overall Statistics	
		'f'	%	'f'	%	'f'	%
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)
1.	Indian Army	24	33.80	47	44.33	71	40.11
2.	Indian Navy	20	28.16	29	27.35	49	27.68
3.	Indian Air Force	11	15.49	11	10.37	22	12.42
4.	Paramilitary Force	05	7.04	13	12.26	18	10.16
5.	CPOs	03	4.22	03	2.83	06	3.38
6.	Defence Civilians	08	11.26	03	2.83	11	6.21
	Total	71	100	106	100%	177	100

6.181 General: Bulk of the respondents had their family members in Indian Army followed by Indian Navy, Air Force, Defence Civilian establishments, Paramilitary Forces and Central Police Organization.

6.182 Degree of Significance of Relationship between Ranking of Defence Services by Student Respondents and Branches of their Relatives in the Armed Forces.

6.1821 Refer Table No. 6.18

6.1822 The branches of Armed Forces can be grouped into three broad categories- No. 1 category comprising Army, Navy and Air Force, No. 2 category comprising Paramilitary Forces including CPOs and No. 3 category consisting of Defence Civilian.

6.1823 Computing of χ^2 : $\chi^2 = 1257.64$ (Refer Appendix 'T' and Table No. 6.1823 on Page No. 335)

6.1824 Inference: The value of χ^2 being higher than table value the relationship between the two variables is very significant.
Hence, null hypothesis, H_0 is rejected.

6.19 Details of Designation of Family Members in the Armed Forces of Respondents.

6.191 General: 61.97% of student respondents had their relatives below officer rank, whereas Defence respondents had 29.24% of their relatives below officer rank.

Table No. 6.19

**Details of Designation of Family Members in the
Armed Forces of the Respondents**

S No.	Designation of Relatives	Students		Defence Personnel		Overall Statistics	
		'f'	%	'f'	%	'f'	%
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)
1.	Personnel below Officer Ranks (PBOR) in the Armed Forces.	44	61.97	31	29.24	75	42.37
2.	Commissioned Rank upto Colonel/ Equivalent	06	8.45	53	50.0	59	33.33
3.	Commissioned Rank Brigadier/ Equivalent and Above	04	5.63	03	2.83	07	3.95
4.	Subordinate Ranks in Para military/CPOs	08	11.26	07	6.60	15	8.47
5.	Officers of PMF/CPOs	02	2.81	09	8.49	11	6.21
6.	Group A/B Defence Civilians	03	4.22	02	1.88	05	2.82
7.	Group C/D Defence Civilians	04	5.63	01	0.94	05	2.82
	Total	71	100%	106	100%	177	100

**6.192 Relationship Between the Ranking of Defence Services by
Student Respondents and Designation of Their Family
Members in the Armed Forces.**

6.1921: Refer Table No.6.19

6.1922: Group ranking of Defence Services into two types – between 1 and 5 ranks and 6 and 9 ranks. Similarly, categorize designation into two- officers and Personnel Below Officer Rank (PBOR).

Table 6.1922 Computation of Chi Square $X^2 = 613.14$ (Refer Appendix 'T' and Table No. 6.1922 on Page No. 335)

6.1923 Inference: The calculated value of x^2 being higher than table value, the relationship is significant. Hence, null hypothesis, H_0 is rejected. It is seen that those students who had accorded higher priority to Defence Services in the choice of their career preference, had their relatives serving below officer rank in the Defence Services. On the other hand, those student respondents, who had relatives in the officer rank, accorded a lower priority to Defence Services in the choice of their career. *Thus, the media campaign should be targeted at the children of Personnel Below Officer Rank (PBOR).*

6.20 Details of Type of Family of Respondents

6.201 General: 80.88% of the students had nuclear families and the balance 19.11% had joint families. It is observed that *student respondents from joint families accord higher priority to Defence Services in the choice for a career than students from nuclear families.*

Table No.6.20

Details of Types of Families of Respondents

S No	Type of Family	Students		Defence Personnel		Overall Statistics	
		'f'	%	'f'	%	'f'	%
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)
1.	Nuclear	182	88	113	75.33	295	78.66
2.	Joint	43	11	37	24.66	80	21.33
3.	Others	Nil	Nil	Nil	Nil	Nil	Nil
	Total	225	100%	150	100%	375	100%

6.202 Degree of Significance of Relationship Between the Ranking of Defence Services by Student Respondents and Type of their Families.

6.2021: Refer Table No. 6.20

6.2022: Computation of χ^2 : $X^2 = 170.45$ (Refer Appendix 'T' and Table No. 6.2022 on Page No. 336)

6.2023: Inference: The calculated value of χ^2 being higher than the table value, the relationship is significant. Hence null hypothesis H_0 is rejected.

6.21 Summary of Results of Chi Square Tests

6.211 The relationship between the ranking of Defence Services by the student respondents and following demographic variables is significant -

- ▶ State wise Nativity of Students
- ▶ Religion
- ▶ SCs, STs, OBCs and General Category
- ▶ Type of school
- ▶ No. of Brothers
- ▶ No. of Sisters
- ▶ Gender
- ▶ Age Group
- ▶ Academic Performance
- ▶ Educational Status of Parents
- ▶ Family's Income
- ▶ Father's Occupation
- ▶ Mother's Occupation
- ▶ Serving/Retired Relatives in The Armed Forces
- ▶ Branches in the Armed Forces of Relatives
- ▶ Designation of Family Members in the Armed Forces
- ▶ Type of Family

(Part-1)

6.213 The degree of relationship between rankings of Defence Services by the student respondents and their various demographic variables varies. The strength of relationship of various demographic variables was measured by their calculated values of chi square. Higher value indicated higher degree of relationship. Various demographic variables have been ranked on the basis of their chi square values and hypotheses accepted or rejected as shown below: -

S No	Variable	Chi square value@	Rank	Hypothesis Accepted or Rejected
1.	No. of Brothers	1481.78	1	Rejected
2.	Religion	811.08	3	Rejected
3.	Wings of Armed Forces	1257.64	2	Rejected
4.	Type of school	319.52	7	Rejected
5.	Designation of Family Members	613.14	4	Rejected
6.	Family Income	355.50	6	Rejected
7.	Fathers Occupation	425.16	5	Rejected
8.	Educational Status of Parents			
	(a) Father	16.055	18	Rejected
	(b) Mother	279.73	8	Rejected
9.	SCs, STs, OBCs and General Category	267.05	9	Rejected
10.	Type of Family	170.45	10	Rejected
11.	House Location	123.52	12	Rejected
12.	Academic Performance	69.17	14	Rejected
13.	Regional Nativity	50.76	16	Rejected
14.	No. of sisters	152.81	11	Rejected
15.	Serving/Retired Relatives	70.01	13	Rejected
16.	Gender	58.70	15	Rejected
17.	Age Group	23.16	17	Rejected
18.	Mother's Occupation	14.29	19	Rejected

@ At 5% Level of significance and 1 or 2 Degree of Freedom.

6.22 Involvement of Various Individuals in the Choice of Career of Student Respondents.

Table No. 6.22

Degree of Involvement of Various Individuals in the
Choice of Career of Students (225)

S No.	Individuals	LI	SI	QI	HI	Total Students	Total Scores	%	Rank
1.	Mother	10	51	68	96	225	710	78.88	1
2.	Father	26	35	77	87	225	665	73.88	2
3.	Sister/ Brother	48	73	53	51	225	557	61.88	6
4.	Teacher	36	55	61	73	225	560	62.22	5
5.	Friends	41	44	56	84	225	633	70.33	3
6.	Relatives	50	63	54	58	225	570	63.33	4
7.	Grand Parents	64	62	45	54	225	539	59.99	7
8.	Others								
	(a) Celebrities	-	2	-	-	2	4	0.44	10
	(b) Girl Friends	-	-	-	3	3	12	1.33	9
	(c) Self- Motivation	-	12	9	-	-	51	5.66	8

Abbreviation

LI – Least Involved

SI – Some What Involved

QI – Quite Involved

HI - Highly Involved.

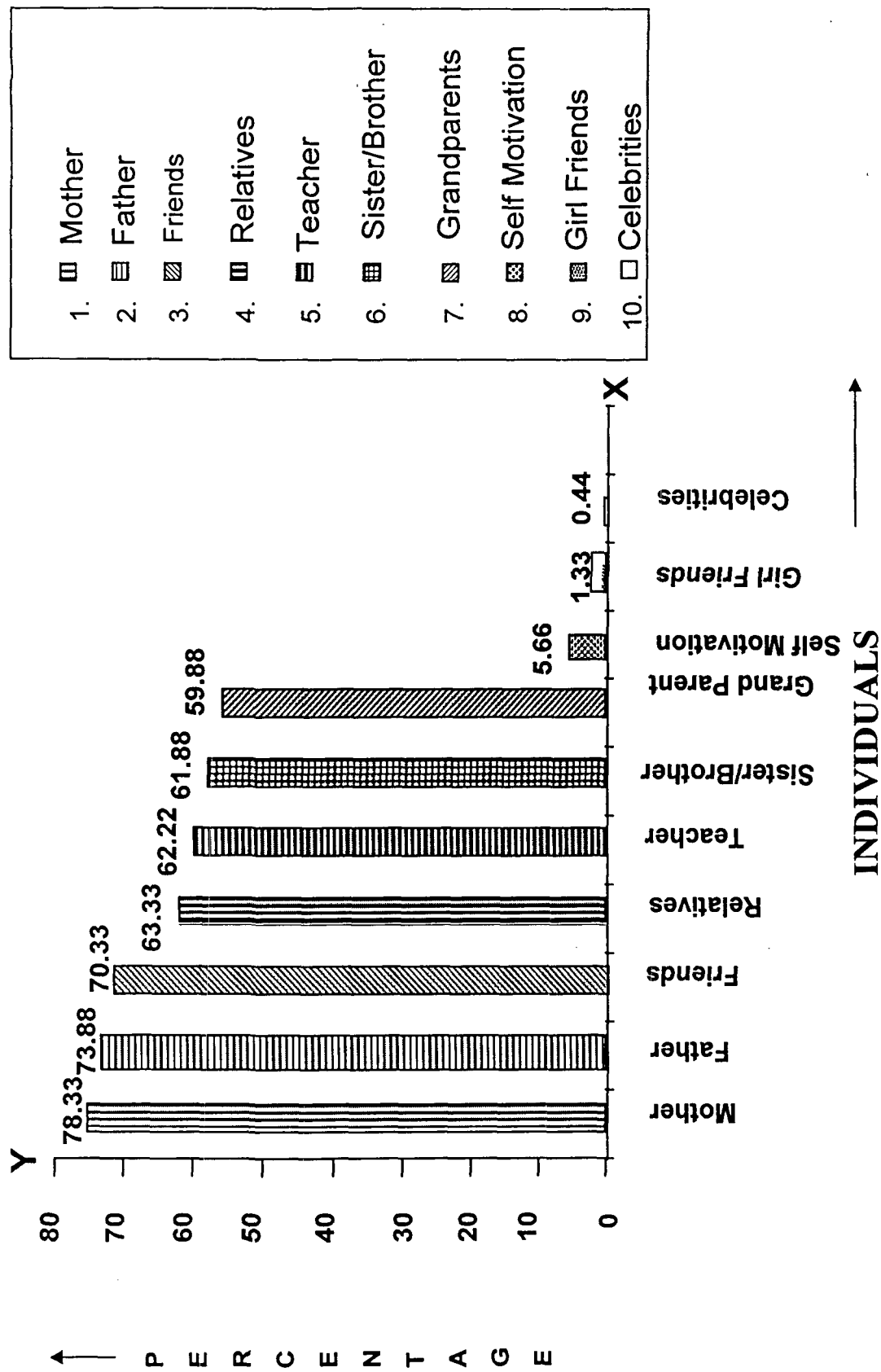


Fig. 6.9111: Degree of Involvement of Various Individuals in the Choice of Career.

6.221 Overall Perspective: Father followed by friends, teachers, relatives, grandparents and sister/brother influences the students in the choice of their career. For degree of involvement of various individuals in the choice of career of school, UG and Post Graduate student respondents refer appendices 'H', 'I' and 'J' respectively. For overall perspective of degree of involvement of various individuals, refer Table 6.22 and Figure No. 6.9111.

6.222 Computation of Total Scores: The individuals marked as least involved (LI) Somewhat Involved (SI), Quite Involved (QI), Highly Involved (HI) were assigned weights of as 1, 2, 3 and 4 respectively. The product of total frequencies and their weights are added to get total score.

6.223 Percentage of Total Scores = $\frac{\text{Total Score}}{\text{Maximum Possible Score of Total Students i.e. } 150 \times 4 = 600} \times 100$

6.224 Inference: Degree of influence of various individuals varies at different stage of life of students. This is true in case of exercising choice for career also. Armed Forces Recruiting Directorate should in addition to influencing the target students should also design and develop campaigns to motivate parents, teachers, relatives and siblings of students. They constitute an important ingredient of environment influencing young impressionable minds of prospective candidates for the Armed Forces.

6.23 Overall Ranking of Various Broad Categories Professions By Student Respondents. It is based on appendices 'K', 'L' and 'M' showing ranking of various broad categories of professions by school, UG and PG students

respectively.

- 6.231 Broad Categories of Professions:** Civil Services were adjudged as the most preferred career option followed by Private Sectors (No. 2), Self Employment (No. 3), Independent Professional (No.4), Teaching (No. 5), Career in Creative/Performing Arts (NO. 6) Computer and IT Professional (No.7), Defence Services (No. 8), Public Sector (No.9). Amongst the other professions were consultancy and acting preferred by the respondents.
- 6.232 Computation of Total Scores:** In order to arrive at cumulative score to determine students' preference for various professions, the following methodology was adopted. The profession receiving first preference out of nine professions considered was assigned a weight of 9. Similarly, a profession receiving second preference was awarded 8 marks and so on. The profession rated at the bottom (i.e. 9th rank) was awarded one mark only. Frequencies in all nine ranks were multiplied with various weights assigned. The product of frequencies and marks was added to get total score.
- 6.233 Computation of percentage:** At column (n), it was calculated as follows:

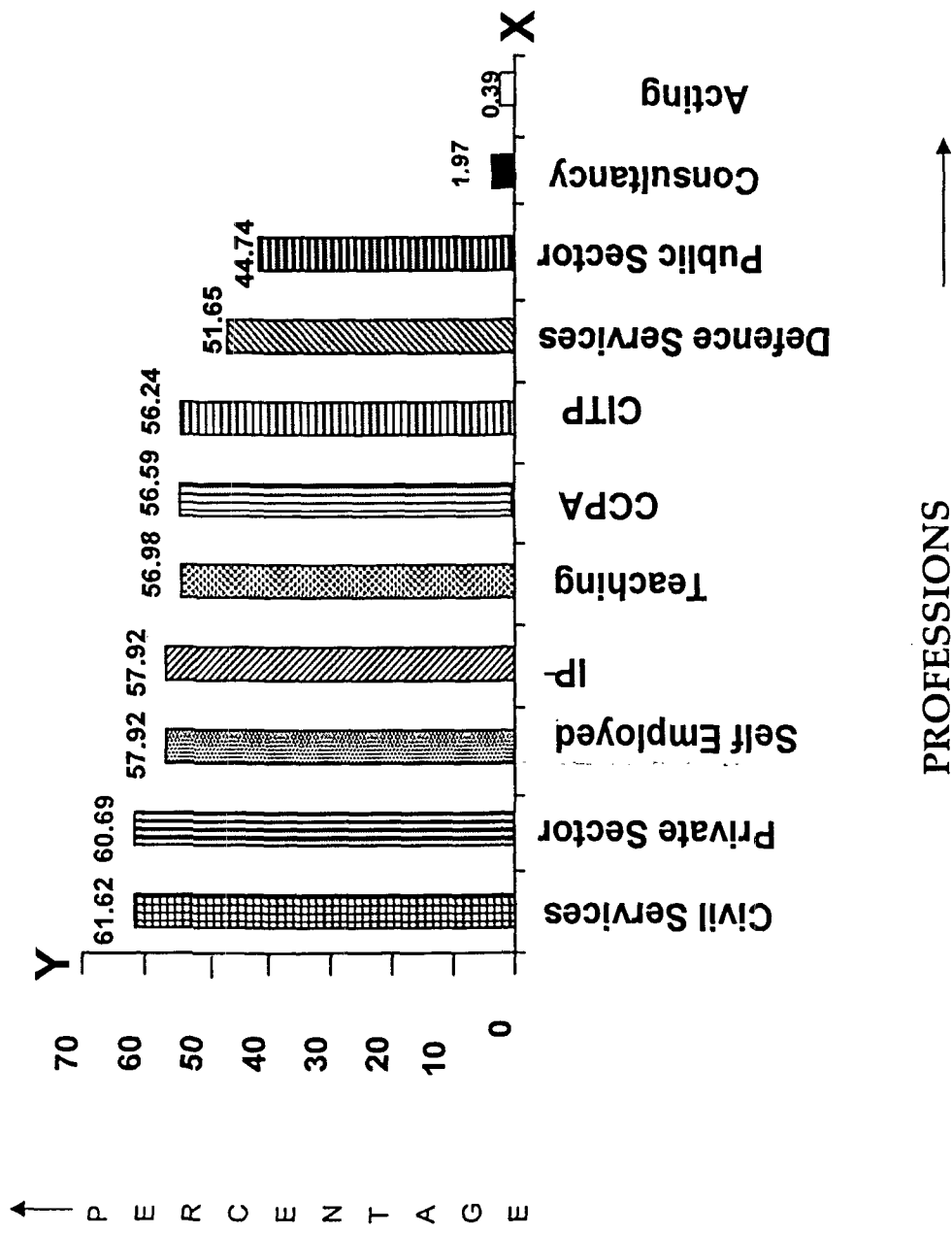
$$\% \text{ of Total Scores} = \frac{\text{Total Score}}{\text{Maximum Possible Score}} \times 100$$

By Total Students i.e. 225x 09=2025

Table No. 6.23

**Combined Overall Ranking of Broad Category of Various Professions as Rated by
School Students, Undergraduates and Postgraduate Students (225)**

S No.	Professions	Frequency of Rankings									(a) N	Total Score	%	Over all Ranking
		I	II	III	IV	V	VI	VI I	VII I	IX				
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(I)	(j)	(k)	(l)	(m)	(n)	(o)
1.	Teaching	20	29	32	37	17	17	19	32	22	225	1154	56.98	5
2.	Career in Creative/ Performing Arts (Singing/Dance/ Music/Painting/ Journalism)	20	26	33	20	27	27	31	30	11	225	1146	56.59	6
3.	Civil Services (IAS/ IPS and Allied Services)	37	25	36	29	20	19	14	26	19	225	1248	61.62	1
4.	Defence Services (Army/Navy/ AF)	10	16	21	34	24	21	22	30	47	225	1046	51.65	8
5.	Independent Professional (Doctor/Engineer /Lawyer/Financia l Expert)	23	34	23	25	33	21	21	22	23	225	1169	57.72	4
6.	Private Sector (Indian Company/MNC)	35	30	26	21	30	25	21	16	21	225	1229	60.69	2
7.	Public Sector	08	14	21	15	34	29	38	19	47	225	906	44.74	9
8.	Self Employed	17	37	21	20	28	45	30	20	07	225	1173	57.92	3
9.	Computer & IT Professional	25	20	24	29	10	27	35	34	21	225	1139	56.24	7
10.	Any other Profession (a) Acting	-	-	-	-	-	-	-	4	-	4	8	0.39	11
	(b) Consultancy	-	-	-	-	8	-	-	-	-	8	40	1.97	10



1. Civil Services
2. Private Sector
3. Self Employed
4. Independent Profession (IP)
5. Teaching
6. Career in Creative/ Performing Arts (CCPA)
7. Computer & IT Professional
8. Defence Services
9. Public Sector
10. Any Other Profession Consultancy
11. Acting (AOP)

**Fig. 6.912 : Bar graph showing Combined Overall Ranking of Broad Career Options
(As Rated by Students)**

Inference: Students' preference for various professions changes as they move from school stage to undergraduates and post graduates classes. The Armed Forces remained a lesser-preferred career option amongst the youth. Possibly, professional hazards, hardships involved and incompatible compensation dissuade Indian Youth from venturing into the Armed Forces.

6.234 Comparative Ranking of Broad Categories of Various Professions By Schools, UG and PG Student Respondents

Table No. 6.234

Comparative Ranking of Various Professions Among School, UG and PG Students

S No.	Broad Category of Profession	School Students	Undergraduates	Post Graduate Students
1.	Teaching	II	VI	IV
2.	Career in Creative/ Performing Arts (Singing/Dance/ Music/Painting/ Journalism)	V	II	VII
3.	Civil Service (IAS/ IPS and Allied Services)	IV	I	I
4.	Defence Services (Army/Navy/AF)	VIII	IX	IX
5.	Independent Professional (Doctor/Engineer/ Lawyer/Financial Expert)	III	III	III
6.	Private Sector (Indian Company/MNC)	I	VII	II
7.	Public Sector	VII	VIII	VIII
8.	Self Employed	III	IV	VI
9.	Computer & IT Professional	VI	V	V
10.	Any other Profession			
	(a) Acting	-	IX	-
	(b) Consultancy	-	X	-

Table No. 6.24

Ranking of Sub Categories of Various Professions within the Broad Category

S No.	Board Category Of the Professions	Sub Category Of Professions	Frequency of Ranking					N	Total Score	%	Order of Preference
			I	II	III	IV	V				
1.	Career in Creative/ Performing Arts	Singing	47	31	67	41	39	225	681	60.53	3
		Music	39	37	51	49	49	225	643	57.15	4
		Dance	56	50	30	50	39	225	709	63.02	2
		Painting	34	44	43	44	60	225	623	55.37	5
		Journalism	49	63	34	41	38	225	719	63.91	1
2.	Civil Services	IAS	80	58	35	52	NA	225	593	65.88	1
		IPS	63	58	49	55	NA	225	579	64.33	2
		IFS	56	54	52	63	NA	225	553	61.44	3
		Allied Services	19	56	190	60	NA	225	484	53.77	4
3.	Defence Services	Army	44	68	113	NA	NA	225	401	59.40	3
		Indian Navy	75	76	74	NA	NA	225	451	66.81	2
		Indian Air Force	94	84	47	NA	NA	225	497	73.62	1
4.	Independent Professional	Doctor	68	59	46	52	NA	225	593	87.85	1
		Engineer	64	56	55	50	NA	225	584	86.51	2
		Lawyer	36	53	67	69	NA	225	506	74.96	4
		Financial Expert	50	58	58	59	NA	225	549	81.33	3
5.	Private Sector	Indian Company	82	143	NA	NA	NA	225	307	68.22	2
		MNC	142	83	A	NA	NA	225	367	81.55	1

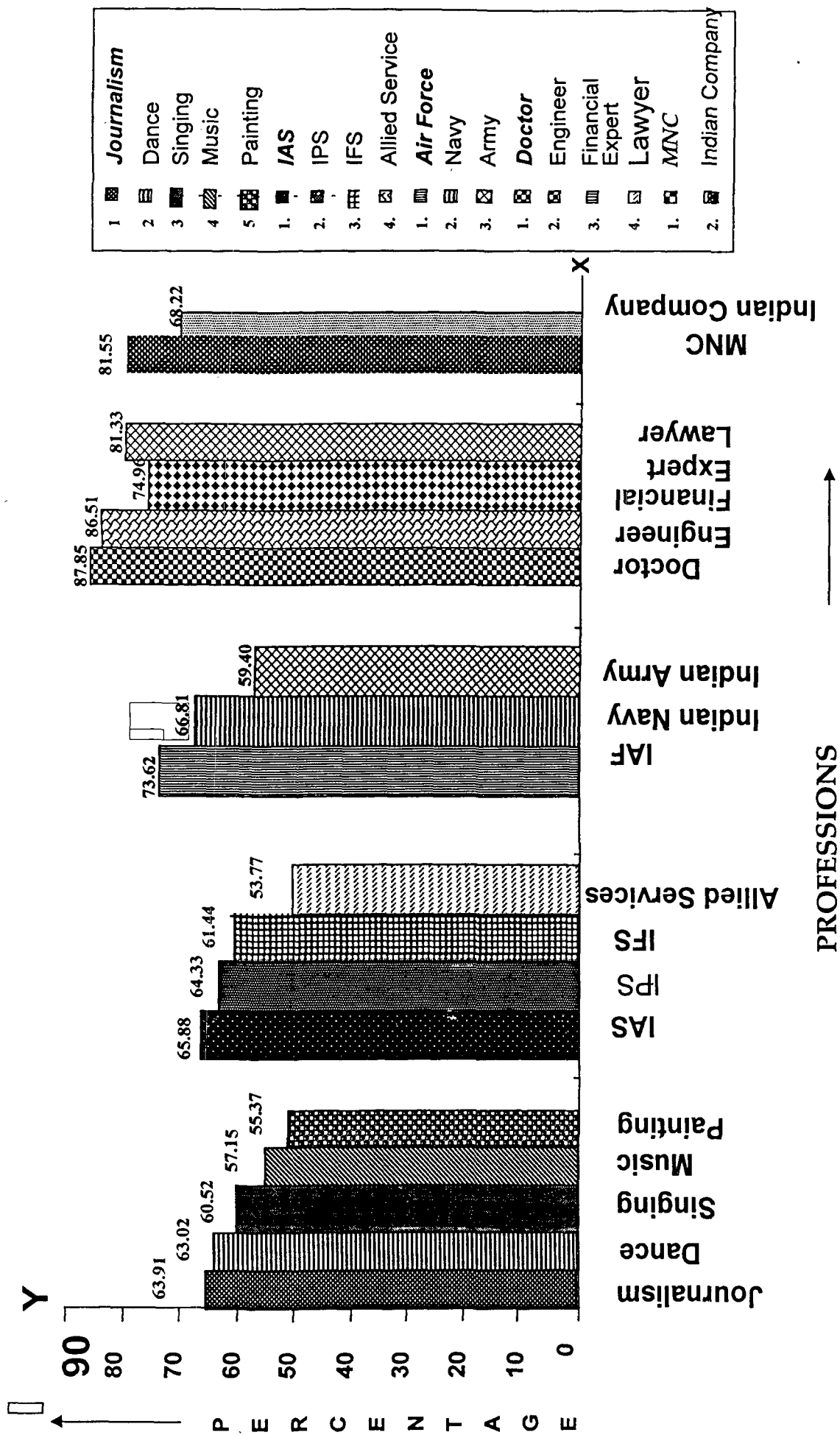


Fig.6.24 : Ranking Sub Within Sub Categories of Various Professions within Broad Categories (As Rated by Students Respondents).

6.241 Computation of Total Scores: It is calculated by awarding 5 marks to No. 1 subcategory, 4 marks to No. 2, 3 marks to No. 3, 2 marks to No. 4 preferred sub category and 1 mark to No. 5 preferred subcategory. In case of only four subcategories, marking was commenced with award of 4 marks to No. 1 subcategory. Frequencies of each ranking in a subcategory were multiplied by various marks allocated. The product of frequencies and marks in each rank would be added up to get total score.

6.242 Computation of Percentage:

$$\% = \frac{\text{Total Scores}}{225} \times 100$$

6.243 Ranking of Sub Categories of Professions by School, UG and PG Student Respondents. Refer appendices 'N', 'O' and 'P' respectively arriving at

6.244 Comparative Ranking of Subcategories of Professions (Refer Table 6.249)

6.245 Career in Creative and Performing Arts: Journalism was the most preferred, followed by dance, singing, music and painting. Use of Information Technology, video conferencing and telecommunications has improved the speed of information dissemination.

6.246 Civil Services: IAS was the most coveted followed by IPS, IFS and Allied Services. The power and prestige attached with IAS along with challenges in the field of administration always draw pull high achievers towards it.

6.247 Defence Services: IAF was rated as No. 1 followed by Indian Navy and Indian Army. The challenges of flying, luxury of flying allowance and relatively more comfortable life than Army and Indian Navy has kept popularity of IAF high.

6.248 Independent Professional: Medicine was rated as the most popular profession followed by Engineering, Financial Experts and Advocacy in a Court of Law. Possibly, 'Opportunity to Earn a Lot' in a private clinic over whelmed youngsters' minds.

6.249 Public Sector: MNC was preferred over Indian Companies. PSUs are being disinvested. These are sun-setting industries due to their limited profitability , out dated technology and cost over-runs.

Table No. 6.249

Table Showing Comparative Ranking of Sub Categories of various Professions in Order of Preference within Broad Categories as Rated by School Students (75), Undergraduates (75) and Postgraduate Students (75)

S No.	Broad Categories of The Professions	Sub Category of Professions	Rating By School Students	Rating By Under Graduates	Rating By Post Graduate Students
1.	Career in Creative/ Performing Arts	Singing	IV	II	I
		Music	III	V	II
		Dance	II	I	III
		Painting	V	IV	III
		Journalism	I	III	I
2.	Civil Services	IAS	I	I	II
		IPS	II	III	I
		IFS	III	II	III
		Allied Service	IV	IV	IV
3.	Defence Services	Army	III	III	III
		Indian Navy	III	II	II
		Indian Air Force	I	I	I
4.	Independent Professional	Doctor	I	III	I
		Engineer	II	IV	III
		Lawyer	IV	I	IV
		Financial Export	III	II	III
5.	Private Sector	Indian Company	I	II	II
		MNC	II	I	I

6.26 Degree of Importance of Various Motivators for 150 Student Respondents.

Table No. 6.26
Overall Combined Degree of Importance of Motivators

S No.	Motivators	Degree of Importance				N	Total Score	%	Overall Position
		'LI'	'SI'	'QI'	'VI'				
1.	Power and Authority	39	50	76	60	225	607	67.44	6
2.	Prestige in Society	33	50	58	84	225	643	71.44	4
3.	Challenging Work	32	56	68	69	225	624	69.33	5
4.	Opportunity to Serve the Nation	43	77	58	47	225	559	62.11	8
5.	Adventurous Life Style	68	71	49	37	225	505	56.11	13
6.	Glamour of Uniform	50	80	58	37	225	532	59.11	11
7.	Recognition & Rewards	46	78	73	28	225	533	59.22	10
8.	Opportunity to earn a Lot	20	42	53	110	225	703	78.11	1
9.	Job Security	28	32	68	97	225	684	76.0	2
10.	Job Close to Hometown	62	76	53	34	225	509	56.55	12
11.	Job in a Large Metro	72	40	69	44	225	535	59.44	9
12.	Security of Self & Family	38	34	64	89	225	654	72.66	3
13.	Feeling of Togetherness among Fellow Workers	39	58	66	62	225	601	66.77	7

Abbreviations: -

'LI' = Least Important. 'SI' = Somewhat Important.
 'QI' = Quite Important 'VI' = Very Important.
 'N' = Total frequency of response for a Motivator.

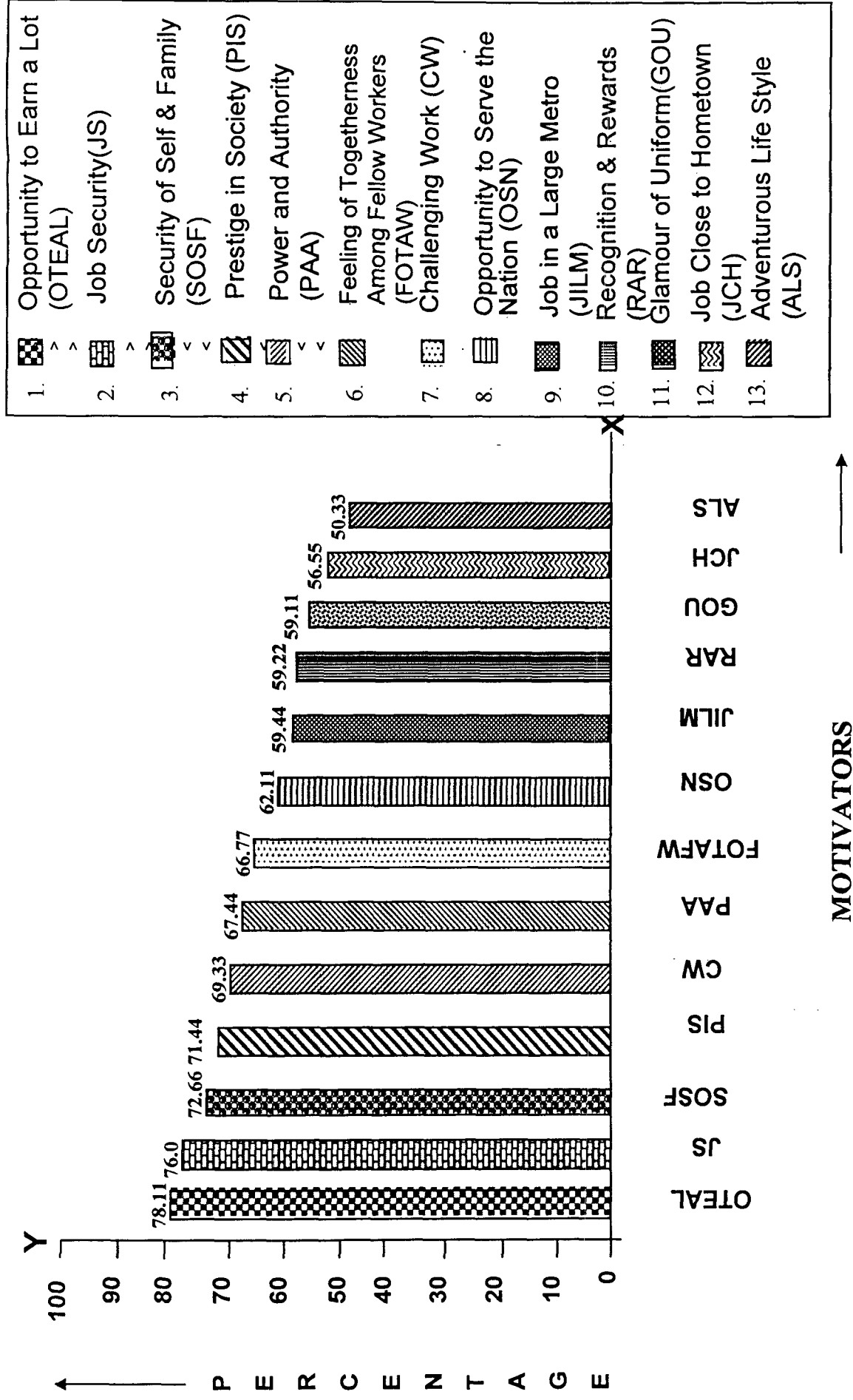


Fig. 6.262- Degree of Importance of Motivators in Descending Order for Student Respondents.

6.261 Computation of Total Scores: Mark Least Important (LI), Somewhat Important (SI), Quite Important (QI), and Very Important Motivators as 1, 2, 3 and 4 respectively e.g. motivator “Power and Authority” rated by 65 respondents with following frequencies distribution will be computed as follows: -

Degree of Importance	‘LI’	‘SI’	‘QI’	‘VI’
Frequency Distribution	18	09	29	09
Allotment of Marks	01	02	03	04
Frequency of Marks	18	18	87	36
Total Scores	18 + 18 + 87 + 36 = 159 and so on.			

6.262 Percentage of Total

$$\% = \frac{\text{Total Score}}{\text{Maximum Permissible Score i.e. } 225 \times 4 = 900} \times 100$$

6.263 Overall Degree of Importance: Overall amongst Motivators, *Opportunity to Earn a Lot (No. 1), Jobs Security (No. 2) and Security of Self and Family (No. 3)* fascinated student respondents. *Glamour of Uniform (No. 11) and Adventurous Life Style (No. 13)* found a very few takers. Other motivators in the order of Precedence were *Prestige in Society (No. 4), Power and Authority (No. 5), Feeling of togetherness amongst Workers (No. 6), Challenging Work (No. 7) Opportunity to Serve the Nation (No. 8), Job in large Metro (No. 9) and Recognition and Rewards (No. 10)*

Table No. 6.262
Degree of Importance of Motivators
(Comparative Analysis for School, UG and PG Students)

S No.	Order of Importance	Motivators in order of Importance			
		School Students (75)	Undergraduates (75)	PG Students (75)	Combined Overall Position Considering all Students
1.	I	Opportunity to Earn a Lot	Prestige in Society	Opportunity to Earn a Lot	Opportunity to Earn a Lot
2.	II	Challenging Work	Job Security	Power & Authority	Job Security
3.	III	Feeling of Togetherness among fellow workers	Security of Self & Family	Job in Large Metro	Security of Self & Family
4.	IV	Security of Self & Family	Power and Authority	Job Security	Prestige in Society
5.	V	Job Security	Challenging Work	Security of Self & Family	Power & Authority
6.	VI	Prestige in Society	Opportunity to Earn a Lot	Prestige in Society	Feeling of Togetherness among fellow workers
7.	VII	Recognition & Rewards	Opportunity to Serve the Nation	Feeling of Togetherness among fellow workers	Challenging Work
8.	VIII	Power & Authority	Recognition and Rewards	Challenging Work	Opportunity to Serve the Nation
9.	IX	Opportunity to Serve the Nation	Adventurous Life Style	Opportunity to Serve the Nation	Job in Large Metro
10.	X	Job Close to Home town	Feeling of Togetherness among fellow workers and Glamour of Uniform	Glamour of Uniform	Recognition & Rewards

11.	XI	Job in Large Metro	Job Close to Home town	Job Close to Home town	Glamour of Uniform
12.	XII	Adventurous Life Style	Job in Large Metro	Adventurous Life Style	Job Close to Home town
13.	XIII	Glamour of Uniform	-	Recognition & Rewards	Adventurous Life Style

6.264 Overall Analysis: ‘*Opportunity to Earn a Lot*’ was rated as No. 1 motivator by all except Under-graduate student respondents. The other motivators which were ranked higher by school students were *job security, challenging work, feeling of togetherness among fellow workers, security of self and family, Job Security and prestige in society*. UG students accorded higher preference to *prestige in society, job security, security of self and family power and authority, challenging work and opportunity to serve the nation*. They accorded 6th rank to ‘*Opportunity to Earn a Lot*’. For PG students, *power and authority, job in large metro, job security, security of self and family and prestige in society* were high motivators. Erstwhile motivators which fascinated youth for recruitment into the Armed Forces like *Opportunity to Serve the Nation, Recognition and Rewards, Adventurous life style and Glamour of Uniform* were accorded low weightage by the respondents. This justifies the poor ratings of the Defence Services in the career choice of today’s youth.

6.265 Inference: ‘*Opportunity to Earn a Lot*’ and an ‘*Assured Job*’ are important motivators for today’s youth. On the contrary, *adventurous life style and glamour of uniform* do not fascinate youngsters any longer. Bright and ambitious youth prefer cushy jobs in MNCs and Indian Companies, which offer attractive pay – package. Youngsters shy away from the Armed Forces. For formulation of effective recruitment policies for the Armed Forces, planners have to consider the aspect of pay-package to attract best talents towards the Armed Forces. The overall socio – economic environment in other sectors has to be factored into our

6.27 Suggested Measures to Attract Youth (By Students)**6.271 Overall Interse Priority of Various Suggested Measures**

Analysis of responses of students revealed that compulsory military training was considered most effective in attracting youth towards the Armed Forces. It was followed Improvement in promotional prospects. In addition, there were other suggested measures *like rationalization of pay and allowances, organizing visits of the youth to Armed Forces personnel and their dependents both physically and financially by rehabilitating the disabled land next- of- kin of the deceased soldiers. Further, an effort should be made to glorify Armed Forces as a career through effective media campaign, motivate eligible youth and glorify patriotism, compulsory NCC training, enhancing facilities and conveniences for Armed Forces personnel and highlight the importance of the Armed Forces in national life.*

6.272 School Students. Motivation of Youth through effective media campaign, projection of 'Service Before Self' motto of the Armed Forces, adventurous life style and challenging work environment, enhancement of sense of security for the Armed Forces Personnel and their dependents, high lighting the importance of the Indian Armed Forces in national life, improvement of promotional avenues for Armed Forces Personnel, organizing visits of the youth to the Armed Forces installations to enhance their awareness, compulsory military training, glorification of Armed Forces as a career through media, granting more freedom to Armed Forces Personnel with regard to leave and personal life, treating soldiers with respect in society were important measures suggested to enhance attractiveness of

the Armed Forces.

6.273 Undergraduates: Motivation of youth through carefully planned media campaign, amelioration of service conditions of Armed Forces personnel, proper rehabilitation of Next-of-Kin of the martyrs and the. War wounded, appeal to the conscience of the Youth through references to holy scriptures like Bhagwat Geeta, highlight the achievement of the Indian Armed Forces in national life and quantifying their contributions in terms of security cover to the countrymen and converting this value in terms of rupees, improving promotion prospects of personnel, organizing visits of youth to Defence Services Installations, compulsory military training, Sensitizing the civil administration to the needs of Armed Forces, rationalization of pay and allowances of Armed Forces personnel to commensurate with hardships and risks involved, increase in retirement age of Armed Forces Personnel and removal of political interference from efficient functioning of the Defence Services were important measures suggested by UG students.

6.274 PG Students: Infusing a sense of security in the Armed Forces personnel through proper rehabilitation of the disabled and Next-of-Kin of martyrs, media campaign for motivation of youth, emphasis on permanency aspect of the Armed Forces as a government Service/Career/Profession, enhancing monetary/non monetary benefits for the personnel, indoctrination of the Indian Youth against the proxy war, modification of recruitment/selection process, exposing youth to the activities undertaken by the Armed Forces, compulsory military training, eulogizing Armed Forces as a good career for youth, granting more freedom to the Armed Forces were few important suggestions to attract youth towards the Armed Forces.

Table No. 6.27

Suggested Measures by Students to Attract the Modern Day Youth
Towards Defence Services

Ser No.	Measures Suggested	School Students	UG Students	PG Students	N	%	Relative Position in Descending Order
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)
1.	Increase the Number of Vacancies	12	24	18	54	24.0	20
2.	Recruitment and Selection						
	(a) Dilution in eligibility conditions.	7	2	9	18	8.0	31
	(b) Emphasize Armed Forces as a permanent career.	7	12	26	45	20.0	23
	(c) Conscription.	6	7	13	26	11.55	28
	(d) Highlight Armed Forces as the largest employer after Indian Railways.	17	24	10	51	22.66	21
	(e) The process should be made transparent.	14	18	19	51	22.66	21
	(f) Relax medical tests.	16	19	13	48	21.33	22
	(g) Increase Vacancies of women officers.	19	27	17	63	28	17
	(h) Include tests for measuring the spirit of patriotism.	12	16	14	42	18.66	24
	(i) Dispense with the selection process for volunteers.	7	5	5	17	7.55	32

2	(j) Project 'Service Before Self,' 'Adventurous Life Style' and Challenging work Environment'.	23	29	26	78	34.66	13
	(k) Highlight the importance of Defence Services for the Security of the country e.g. War.	13	27	17	57	25.33	19
	(l) Indoctrinate Indian Youth against proxy war.	12	25	20	57	25.33	19
	(m) Emphasize better facilities of the Armed Forces.	11	09	04	36	16.0	25
	(n) Appeal to conscience of the youth through references from holy scriptures	22	23	21	66	29.33	16
	(o) Highlight the importance of Defence Services during internal security duties.e.g. floods etc.	34	41	30	105	46.66	10
	(p) Motivate youth to Opt for austerity for lasting happiness.	12	08	16	36	16.0	25
	(q) Project gallantry awards of Defence Services.	22	29	24	75	33.33	14
	(r) Organize Visits of the Youth to Armed Forces Establishments.	32	51	40	123	54.66	04

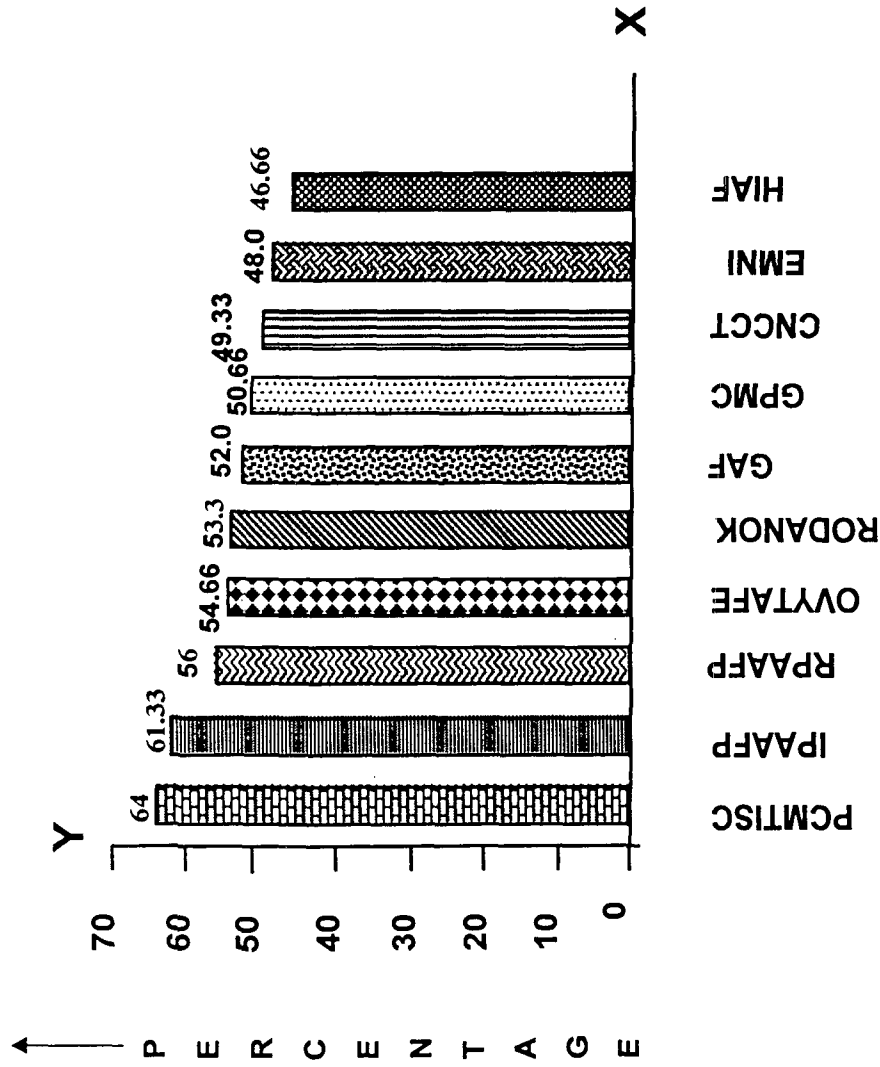
Ser No.	Measures Suggested	School Students	UG Students	PG Students	N	%	Relative Position in Descending Order
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)
	(s) Glorify Armed Forces though TV serials like Param Vir Chakra.	33	49	35	117	52.0	6
	(t) Highlight the Possibility of all round personality development.	19	27	26	72	32.0	15
	(u) Project Armed forces as the pride of the nation.	17	24	25	66	29.3 3	16
	(v) Increase modes of entry into the Armed Forces.	12	18	15	45	20.0	23
	(w) Ensure transparency in defence deals.	6	4	08	18	8.0	31
	(x) More ads in media appealing citizens' sense of nationalism.	12	17	16	45	20.0	23
	(y) Ads comparing advantages of Armed Forces as a career option over other services.	7	11	12	30	13.3 3	26

Ser No.	Measures Suggested	School Students	UG Students	PG Students	N	%	Relative Order Position in Descending
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)
	(z) Eliminate corruption in Recruitment.	15	16	17	48	21.33	22
	(aa) Enhance awareness of people about selection tests.	10	08	09	18	12.0	27
	(ab) Periodic motivational research about preferences of youth.	08	07	30	45	20.0	23
	(ac) Post officers nearest to their native place.	12	13	17	42	18.66	24
	(ad) Higher precedence to Armed Forces Vis-à-vis civilian counterparts.	20	10	27	57	25.33	19
	(ae) Glorify patriotism through media campaign.	28	49	37	114	50.66	07

Ser No.	Measures Suggested	School Students	UG Students	PG Students	N	%	Relative Position in Descending Order
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)
3.	Training of Development						
	(a) Introduce 'Indian Military' as a separate subject in schools and colleges.	27	26	28	81	36.0	12
	(b) Provide compulsory military training in all schools and colleges.	36	50	58	144	64.0	01
	(c) Enhance job satisfaction levels of personnel.	16	13	28	57	25.33	19
	(d) Compulsory NCC training.	33	41	37	111	49.33	08
	(e) Minimise and eliminate ragging at training academies.	12	11	13	36	16.0	25
	(f) Provide better opportunities for academic advancement.	11	09	22	42	18.66	24
	(g) Train Defence Services for production and manufacturing	09	23	16	48	21.33	22

Ser No.	Measures Suggested	School Students	UG Students	PG Students	N	%	Relative Position in Descending Order
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)
4.	Promotion/ posting						
	(a) Improve promotional avenues.	39	48	51	138	61.33	02
	(b) Reduce frequency of posting /transfers.	21	27	22	60	26.66	18
5.	Compensation						
	(a) Increase perks of personnel.	17	12	31	60	26.66	18
	(b) Pay and allowances should commensurate with risks and hardships.	39	54	33	126	56.0	03
	(c) Martyrs' families should be compensated adequately.	29	17	16	12	5.33	33
	(d) Enhance monetary and non-monetary incentives.	36	41	31	108	48.0	09

Ser No.	Measures Suggested	School Students	UG Students	PG Students	N	%	Relative Position in Descending Order
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)
6.	Welfare Measures						
	(a) Rehabilitation of the disabled and the next of kin of the deceased soldiers.	41	42	37	120	53.33	5
	(b) Reservation of seats in educational institutions.	15	29	22	66	29.33	16
	(c) Sensitization of Civil Administration towards the problems of soldiers.	13	11	27	51	22.66	21
	(d) More entertainment facilities for soldiers.	8	3	10	21	9.33	30
	(e) More leave be given to the soldiers.	4	-	2	6	2.66	34
	(f) Liberalise leave rules.	29	31	30	90	40.0	11
7.	Separation						
	(a) Increase retirement age.	14	21	7	42	18.66	24
	(b) Relax release conditions.	29	31	30	90	40.0	11
8.	Functioning						
	(a) Enhance use of IT.	11	8	17	23	16.0	25
	(b) Improve management of men and material.	10	4	3	24	10.66	29
	(c) Grant more freedom with regard to personal life.	16	25	07	48	21.33	22
	(d) Relax discipline code.	13	11	24	48	21.33	22
	(e) De-politicize Armed Forces.	-	30	15	45	20.0	23
	(f) More authority to Armed Forces while rendering aid to civil administration.	-	30	12	42	18.66	24



SUGGESTED MEASURES

Fig. 6.27- Important Suggested Steps to Attract Modern Day Youth (By Student Respondents).

1.		Provide Compulsory Military Training in all Schools & Colleges (PCMTISE)
2.		Improve Promotional Avenues for Armed Forces Personnel (IPAAFP)
3.		Rationalisation of Pay & Allowances of Armed Forces Personnel (RPAAFP)
4.		Organize visits of Youth To Armed Forces Establishments (OVTAFE)
5.		Rehabilitation of the Disabled and Next-of -Kin of the deceased (RODANOK).
6.		Glorify Armed Forces (GAF)
7.		Glorify Patriotism through Media Campaign (GPMC).
8.		Compulsory NCC Training (C NCC T)
9.		Enhance Monetary and Non Monetary Incentives (EMNI).
10.		Highlight the Importance of the Armed Forces In National Life (HIAF)

Inference: To attract high caliber youth towards the Armed Forces, the image of the Services has to be improved by sensitizing the Indian Society and Civil Administration to the needs of soldiers. Amelioration of service conditions and bringing these at par with civil services will motivate youth positively for recruitment into the Armed Forces.

Part III- Reasons for Shortfall of Officers, Effectiveness of Measures Implemented and Measures Suggested by Defence Respondents.

6.28 Overall Analysis of Reasons for Shortfall of Manpower in the Officers Cadre of The Armed Forces (Refer Table No. 6.28).

The Defence respondents cited a number of reasons for shortfall of officers. For ease of understanding, the various reasons outlined have been divided into six categories. These are firstly, factors inherent in nature of Job; secondly, professional hazards; thirdly, organizational factors; fourthly, societal factors; fifthly, social-psychological factors and sixthly, economic factors.

Abbreviation Used in Table: -

OS = Overall Statistics

RPIDO = Relative Position in Decreasing Order

(1) % = $\frac{f_1}{127} \times 100$ (2) % = $\frac{f_2}{08} \times 100$

(3) % = $\frac{f_3}{15} \times 100$ (4) % = $\frac{f_4}{150} \times 100$

Table No. 6.28 Reasons for Shortfall of Manpower in the Officers Cadre of the Armed Forces

Ser No.	Reasons for shortfall of Manpower	IA		IN		IAF		OS		Rank
		'f ₁ '	% (1)	'f ₂ '	% (2)	'f ₃ '	% (3)	'f ₄ '	% (4)	
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)
1.	Factors Inherent in Nature of Job									
	(a) Early Retirement Age.	113	88.97	07	87.5	13	86.66	133	88.66	4
	(b) Autocratic Style of leadership in the Armed Forces.	101	79.52	06	75.0	13	86.66	120	80.0	7
	(c) Frequent Unscheduled Moves of Personnel.	108	85.3	04	50.0	Nil	NA	112	74.66	8
	(d) Lack of Amenities of Urban Environment.	101	79.52	Nil	NA	Nil	NA	101	67.33	12
	(e) Stringent Disciplinary Code.	63	49.60	03	37.5	07	46.66	73	48.66	17
	(f) Uncertainties of Military Life.	96	75.59	03	37.5	02	13.33	64	42.66	18
	(g) Growing Dichotomy about Armed Forces as a Career.	36	28.34	Nil	NA	03	20.0	39	26.0	26
	(h) Limited Intellectual Development and Poor Self-Growth Prospects.	29	22.83	01	12.5	Nil	NA	30	20.0	29
2.	Professional Hazards									
	(a) Risks of being Disabled and Martyred in Battle.	109	85.82	05	62.5	09	60.0	123	82.0	05
	(b) All India and Global Service Liability.	67	52.75	04	50.0	07	46.66	78	52.0	17
	(c) Tough and Harsh Living Conditions with High Risks Factor.	56	44.09	03	37.5	05	33.33	64	42.66	18
	(d) Mental Stress due to Prolonged Deployment on IB/LC/IS Duties/ CI Operations.	46	36.25	03	37.5	06	40.0	55	36.66	22
3	Organisational Factors									
	(a) Subjectivity in Performance Appraisal.	121	95.27	08	100.0	14	93.33	143	95.33	1
	(b) Pyramidal Hierarchy and Poor Promotion Prospects.	119	93.70	07	87.5	13	86.66	139	92.66	2
	(c) Unimaginative Media Campaign, 'Do you have it in you?'	85	66.92	03	37.5	05	33.33	93	62.0	13
	(d) Poor PR and Media Relations.	77	66.62	05	62.5	09	60.0	91	60.66	14
	(e) Tough Selection Standards.	69	54.33	05	62.5	09	60.0	83	55.33	15
	(f) Favouritism, Nepotism and Arbitrariness in Promotion, Postings and Dealings.	67	52.75	04	50.0	07	46.66	78	52.0	16
	(g) Politicization of the	56	44.09	02	25.0	03	20.0	61	40.66	19

Ser No.	Reasons for shortfall of Manpower	IA		IN		IAF		OS		Rank
		'f ₁ '	% (1)	'f ₂ '	% (2)	'f ₃ '	% (3)	'f ₄ '	% (4)	
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)
	Armed Forces.									
	(h) Lack of Internal Cohesion in the Officers' Corps.	46	36.25	03	37.5	06	40.0	55	36.66	22
	(j) Unhealthy Intra and Inter-Services Rivalry.	33	25.98	02	20.0	05	33.33	40	26.66	25
	(k) Emerging corruption in Recruitment and Selection.	31	24.40	02	25.0	04	26.66	37	24.66	27
4	Societal Factors									
	(a) Poor Growth and Development of children of Defence Personnel.	97	76.37	05	62.5	06	40.0	108	72.0	9
	(b) Scandalous Defence Deals.	87	68.5	06	75.0	11	73.33	104	69.33	10
	(c) Breakdown of Joint Family System.	88	69.29	Nil	NA	05	33.33	93	62.0	14
	(d) Lack of Patriotism and Nationalism in Modern Day Youth.	69	54.33	05	62.5	09	60.0	83	55.33	16
	(e) Emerging Single Child Norm in Indian Families.	49	38.58	Nil	NA	03	20.0	52	34.66	22
	(f) Apathy of civil Administration	47	37.0	03	37.5	Nil	NA	50	33.33	23

	Reasons for Shortfall of Manpower	IA		IN		IAF		OS		Rank
		'f ₁ '	% (1)	'f ₂ '	% (2)	'f ₃ '	% (3)	'f ₄ '	% (4)	
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)
5.	Socio-Psychological Factors									
(a)	Frequent Separation of Soldiers from their Families.	110	86.61	04	50.0	08	53.33	122	81.33	6
(b)	Loneliness and Boredom when Posted in High Altitude Areas or Sailing on High Seas.	59	46.5	03	37.5	02	13.33	64	42.66	19
(c)	Accelerated Aging Process of Defence Personnel.	54	42.51	03	37.5	03	20.0	60	40.0	20
(d)	Vulnerability to Marital Discord.	41	32.28	02	25.0	03	20.0	46	30.66	24
(e)	Declining Status of Armed Forces Personnel.	36	28.34	Nil	NA	03	20.0	39	30.66	27
(f)	Dismal Matrimonial Prospects.	33	25.98	Nil	NA	Nil	NA	33	26.0	28
									22.0	
6.	Economic Factors									
(a)	Unrealistic Pay and Allowances.	117	92.12	06	75.0	14	93.33	137	91.33	03
(b)	Opening up of other Lucrative Avenues of Employment.	85	66.92	07	87.5	10	66.66	102	68.0	11
(c)	Dwindling Defence Budget.	41	32.28	05	62.5	09	60.0	55	36.66	21

Notes:

$$(1) \% = \frac{f_1}{127} \times 100 \quad (2) \% = \frac{f_2}{08} \times 100$$

$$(3) \% = \frac{f_3}{16} \times 100 \quad (4) \% = \frac{f_4}{150} \times 100$$

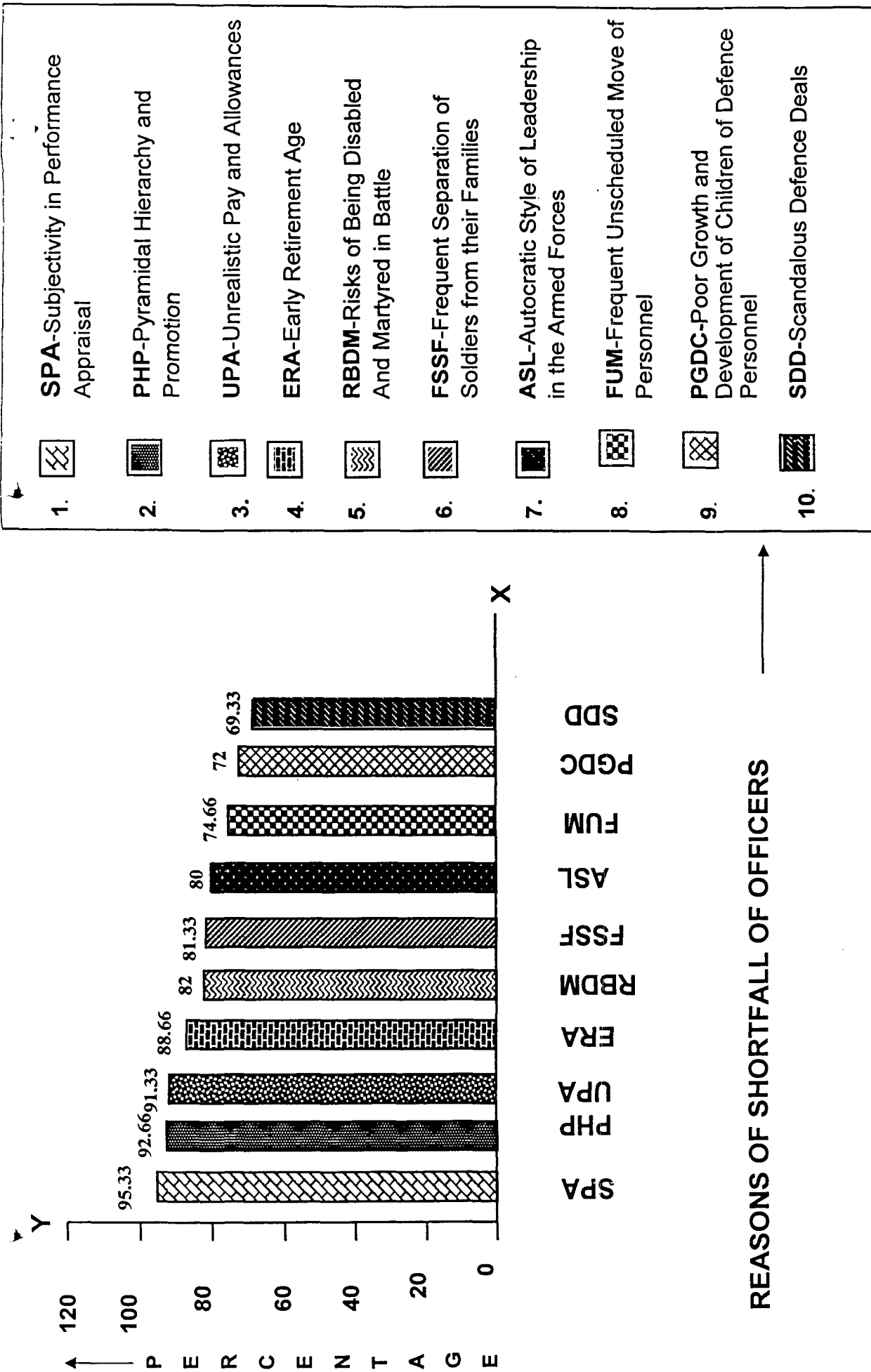


Fig. 6.28: Reasons for Shortfall of Officers Manpower in the Armed Forces (As Rated by Defence Respondents).

6.281 *Amongst the factors inherent in nature of job, 'Early Retirement Age' was the most predominant factor, responsible for shortfall of officers. Armed Forces provide a truncated career. Bulk of personnel retire between 35 and 45 years of age which is much less than 58-60 years of their civilian counterparts. In India, the military feels neglected by society in its problem of finding second career. Military leaders suffer from post retirement psychosis leading to erosion of values of integrity and loyalty during their pursuit of careerism. Other reasons, in the decreasing order, quoted in this category were autocratic style of leadership in the Armed Forces, frequent unscheduled moves of personnel, lack of amenities of Urban environment, a stringent disciplinary code, uncertainties of military life, growing dichotomy about Armed Forces as a career, limited intellectual development and poor self growth prospects. Due to early retirement age, children of military personnel remain unsettled vocationally at the time of superannuation. This causes socio-economic-psychological stresses to the servicemen. The authoritarian leadership style of many military leadership provide 'Humour in uniform' to viewers of TV Serial like 'Fauji' etc. The style may be very painful to the subordinates to execute arbitrary orders of such leaders. Unflinching obedience to 'Lawful Military Command' in both letter and spirit is expected from personnel. They are not to reason why but to do and die; appears outdated in to day's context.*

- **Frequent unscheduled moves of personnel disrupts both personal and professional life of men.** Such moves are necessitated due to unexpected aid to civil administration to restore law and order in troubled areas, restoration of essential supplies during strikes, relief and rescue operations during natural

calamities. Training, operational and administrative moves may be irksome to Armed Forces aspirants. Relentless pursuits of militants in insurgency-infested areas may be a nerve-wrecking experience for a youngster.

- **Lack of Amenities of Urban Environment** during deployment on Line of Control (LC)/ International Border (IB)/Counter Insurgency Operations (CI Ops)/ High Altitude Areas (HAA)/ High seas and other far-flung areas may make the life dull and monotonous. Overcome with boredom and loneliness, many soldiers feel depressed and may require psychiatric care.
- **Stringent Disciplinary Code** enforced under Army, Navy and Air force Acts may appear draconian to easy-going and comforts loving youngsters. Punitive discipline in the form of trial by General/Summary Court Martial may be disenchanting to aspirants.
- **Uncertainties of military life** with regard to postings, promotion, and vulnerability to enemy shelling on LC/IB, chance encounter with militants during CI Operations. And training accidents alienate youth against choice of Armed Forces as a career option.
- **There is growing Dichotomy about Armed Forces as a Career.** Many behavioural scientists consider it as a way of life. Attendance at PT, games, training and evening mess functions is considered as way of life. Being devoid of targets in terms of units of production or services to be rendered, this ambiguity about the status of Defence Services has arisen. Poor employment potential of Defence Personnel with purely services' qualification

is indicative of this philosophy. Most recruiters find ex servicemen suitable for security jobs only, provided they have had relevant qualification and industrial experience. This may be disenchanting to a youngster with 'job-hopping' propensity.

- **Armed Forces provide Limited Opportunities for Intellectual Development and Self Growth.** Pyramidal and steep hierarchy with large number of levels and centralized control of resources provide very less opportunities for creative thinking, initiative, innovation and decision making by junior leaders. This may be discouraging to ambitious youngsters.

6.82

Professional Hazards responsible for shortfall of officers.

Various factors listed by Defence Respondents in descending order were risks of being disabled and martyred in battle, all India and Global Services liability, tough and harsh living conditions with high risk factor and mental stresses due to prolonged deployment on IB/LC/IS Duties/CI Operation.

- **Risks of being disabled and martyred during training and at the battlefield always hang like 'Sword of Damocles' in minds of personnel.** Continuous employment in CI Operation in J&K and North East has raised the casualty rate of soldiers. Fighting with own strayed brethren masquerading as militants, under constraints of adherence to Human Rights, Law of the Land and Use of Minimum Force puzzle soldiers. Such ghastly scenes of encounter with militants may demotivate many peace loving and bright youngsters from venturing into the Armed Forces.

- **‘All India and Overseas Service Liability’.** It may disenchant sedentary and static youth who believe that ‘Rolling Stone Gathers no Moss.’ Postings during mid-academic session of children to places with no schooling facilities may discourage youth aspiring for stable family and professional life.
- **‘Tough and Harsh Living Conditions’** coupled with risk factor are shunned by youth who yearn for a path of least resistance. Solitude of life in bunkers on LC/IB/HAA, rarity of oxygen in HAA and uncongenial climate of jungles in the North-East and scorching heat of the desert of Rajasthan may not be taken kindly by indoor oriented, academically inclined youth. Company of semi-literate Personnel below officer Ranks (PBOR), compulsory games and PT with them, frequent socialization with them during training and informal interactions may deprive progressive youngsters of their social needs.
- **Psychological Stresses due to continuous deployment on IB/LC/IS Duties/CI Operations** may be disenchanting to youngsters with progressive outlook. It affects physical, mental, social outlook and spiritual well being of personnel.

6.283

Amongst the organisational factors responsible for shortfall of Officers, subjectivity in performance appraisal was the most predominant one. It was followed by pyramidal hierarchy and poor promotion prospects, subjectivity in performance appraisal, unimaginative media campaign, ‘Do You Have it in you?’ poor PR

and media relations, tough selections standards, favouritism, nepotism and arbitrariness in promotion, postings and dealings, politicization of the Armed Forces, lack of internal cohesion in the officer's Corps, unhealthy intra and inter services rivalry and emerging corruption in recruitment and selection.

- **Steep hierarchy with number of levels (Tall Organisational Structure) narrows down promotion prospects.** Since 80% of officers' Cadre is constituted by Majors/Equivalent and below, promotion to higher ranks becomes very difficult. This is unlike Civil Services. Armed Forces Officers Cadre is 10 times the size of the IAS and it has only one full General. The IAS has 100 such appointments. Even after the 1980/81-cadre review 86.78% Officers are in the rank of Major and below; 11.11% are Lt Col and Colonel/ Equivalent and only 3.11% are Brigadiers and above. IAS/IPS officers normally become Joint secretary/IG within 18-20 years of service. In Armed Forces, it takes 33-35 years of service to assume an equivalent rank of Joint secretary/IG i.e. Major General/Equivalent. Secondly, the probability of becoming Joint secretary/IG for a direct entrant IAS/IPS recruit is quite high (Almost 100%). This adversely affects the age of retirement of personnel. Since bulk of the Armed Forces officers retire as Major/Lt Col/Equivalent, they retire at a young age of 52-53 years with settlement of children hanging in balance. As in 1970s, 40.6% Armed Forces officers retired in the rank of Major/Equivalent and below and there was not a single case of retirement at this rank in the IAS or IPS.
- **Subjectivity in Performance Appraisal is another Bug Bear.** While Lower Ranks are not disseminated their Annual Confidential Report (ACR) ratings, Officers are shown only the portion of the

report of the initiating officer (IO). The portion of the report showing 'potential' of the IO and ratings by Reviewing Officer (RO) and Senior Reviewing Officer (SRO) are kept confidential from the appraisee. Normally, the interpersonal relations of the appraisee with the IO, RO and SRO play significant role in determining his 'reported' performance. Selection to the ranks of Lt Col and above being based largely on ACR numerical ratings in 'Personal Traits' and 'Demonstrated Performance'. And due to limited vacancies available many officers resort to sycophancy in addition to maintaining meritorious performance. This gives rise unhealthy rivalry between competing officers and vitiate the Quality of Work Life (QWL). Thus, it is seen that on many occasions, 'Average Performers' outpace 'High Professional Achievers' due to their personal rapport with IO, RO and SRO. Thus, creeps in a feeling of disgruntlement and poor job satisfaction amongst officers 'overlooked' for promotion. The top brass of the Indian Armed Forces has done precious little to set right this aberration. It is against 'Human Resource Development' practices. And youngsters with progressive outlook may not like it. The military uses ACR to control the behaviour of officers, making it the instrument for promotions, job placement and course seats. There is total lack of standardisation of evaluation tendencies of reporting officers.

- **Unimaginative media campaign, 'Do you Have it you?' targets mainly urban youth, who have little inclination to join the Armed Forces.** Scenes of polo, evening ball and golf hardly fascinate youngsters from rural/semi urban areas. Bulk of the modern day officers' cadre comes from middle/lower middle-income group with average/high average academic background.

- **Due to poor ‘Media – Military Relations’ the outside public has been kept ill informed about the happenings of the Armed Forces.** The military has maintained a holy now image in the eyes of country men, much against the constitutional right of Indian citizens to *Right to Information*, enshrined in Article 19 of the constitution. There is a need to increase awareness of citizens about terms and conditions of recruitment and activities of the Armed Forces. During Kargil war in June-July 1999, the media’s potential as a force multiplier was optimally exploited to inform the Indian public. Now, there is much better cooperation between the two organs of a democratic country.
- **Tough selection standards at Union Public Service Commission (UPSC) conducted written tests, services selection centers conducted Psychological, and Personality Tests leave many aspirants dejected.** Many such candidates shy away from the second attempt for entry into the Armed Forces. Youngsters with well-rounded personality are difficult to find. In spite of availability of vast reservoir of unemployed youth in the country, quality youth avoid applying for the Armed Forces, when other softer options are available.
- **Favoritism, Nepotism and Arbitrariness in Selection, Promotion, Posting and Dealings deter forthright and bright youth from venturing into the Armed Forces.** Such youngsters who call a spade and spade fear persecution by autocratic military leaders.
- **Politicization of the Armed Forces discourages motivated and capable youth from recruitment.** Interference in postings, promotion, honours and awards denies justice and fair play to

many conscientious service officers. Summary dismissal of a Chief of Naval Staff, controversial promotion of a Rear Admiral to the rank of Vice Admiral, letter written by an Air Marshal to CM of Punjab seeking political favours for posting to New Delhi are cases in point. Such trends dishearten young, impressionable applicants. In India, after independence, the attractiveness of a military career has been progressively downgraded. It has been done in the belief that such a policy would insulate the country against a military take over (Chibber, 1986).

- **Lack of Internal cohesion in the officers' corps demotivates many youngsters from venturing into the Armed Forces.** Ego battles and smearing campaign, in the wake of Kargil conflict put off youth from venturing into the Armed Forces.
- **Unhealthy Intra and Inter Services rivalry is sickening.** Cut throat competition and one-upmanship required to make way up the ladder of hierarchy discourage youth from recruitment.
- **Emerging corruption in Recruitment and Selection is another hurdle for prospective capable recruits.** Media reports highlighting malpractices in recruitment is a disturbing trend. It discourages volunteers for the Armed Forces.

6.284 *Amongst the societal factors, the various demotivators responsible for shortfall of officers, poor growth and development of children of Defence personnel was ranked as No. 1 by the Defence respondents. Other factors in the decreasing order of frequencies were scandalous defence deals, breakdown of joint family system, lack of patriotism and nationalism in modern day youth, emerging single child norm in Indian households and growing apathy of civil Administration towards the domestic problems of families of far flung posted soldiers.*

- **Children of Defence personnel suffer both socially and academically due to their frequent separation from their fathers.** A sense of insecurity and consequent loss of self-confidence creeps in.
- **Breakdown of Joint Family System has caused tremendous hardships to soldiers' families staying separately in their matrimonial homes.** Emergence of nuclear family system with few members to look after family affairs entails youth to join professions close to their native places.
- **Lack of Patriotism and Nationalism in modern day youth is the Outcome of growing consumerist culture.** Capricious and self centered, they have scant regard for nation building activities.
- **Emerging single child norm in Indian families may deter only Sons/Daughters from venturing into the Armed Forces.** Couples with progressive out look restrict their family size to one child, thus discouraging such children from applying for risky career like Armed Forces. Earlier, families with 2-3 children could motivate 1-2 children for enrolment into the Defence Services.

- **Indifference shown by Civil Administration towards the domestic problems of families of soldiers posted in Far-flung Areas and ex service men is a cause for concern.** It demotivates prospective candidates against recruitment. Retired officers today prefer to call themselves 'Shri Atal' and not colonel Atal because scant respect they receive shames rank held by them (Awasthy, 1986).

6.285 *Amongst the Socio-Psychological factors, frequent separation of soldiers from their families was the greatest demotivator. It was followed by loneliness and boredom experienced during postings at HAA or during sailing at high seas, accelerated aging process of Defence personnel, greater vulnerability to marital discord, declining status of Armed Forces personnel and dismal matrimonial prospects.*

- **Frequent separation of soldiers from their families discourages many career optees from venturing into the Armed Forces.** On an average, Army personnel spend 50% - 75% of their service life in field conditions bereft of family accommodation. It deprives them and their families of basic social/affiliation needs. Even peace-time family stations provide only 14% of family accommodation to Infantry soldiers, which is a pea-nut.
- **Loneliness and boredom experienced at High Altitude Areas (HAA) and during voyage at high seas by Defence personnel is disenchanting to youngsters.** They prefer exploring other avenues of employment and join the Armed Forces only as a last resort.

- **Accelerated aging process is seen amongst Defence personnel when employed in HAA/LC/IB/CT operations or during sailing at high seas.** Operational stresses coupled with vagaries of weather and domestic worries take a toll on soldiers' health. Thus reducing their cosmetic value in social life.
- **Vulnerability to marital discord, due to frequent separation between soldier husband and wife increases.** Such situations lead to broken homes and the entire family suffers. This may be unpalatable to an Armed Forces aspirant.
- **Declining status of Armed Forces personnel, over the years, has reduced them to mere puppets in the hands of civilian counterparts, especially IAS and IPS.** Erstwhile glamour and élan associated with Armed Forces has vanished. At the time of independence, there was only one Inspector General of Police in each state, who was considered equivalent to a Brigadier. However, now there is a Director General of Police (DGP) in each state, who consider himself equivalent to Lt Gen/General due insignia of equivalent Armed Forces rank, he wears. Earlier, it was the number of years of service that was the scale to determine the warrant of precedence of Defence officers vis-à-vis IAS/IPS counter parts. Such erosion in status does not inspire capable youth to opt for Armed Forces. The fear of military coup or militarism has been in the minds of politicians of modern democracies. India is no exception. The factor against which there is maximum resentment is downgrading of status. In the new warrant of precedence there is no regard to executive responsibility or length service. It has become a source of friction (Chiber, 1986). **Dismal matrimonial prospects for**

Armed Forces bridegrooms due to high degree of risks, hardships and separation associated with military life discourage many aspirants from opting for the Defence Services.

6.286 *Amongst the Economic Factors responsible for shortfall of officer's manpower, 'Unrealistic Pay and Allowances' was the most important one. Opening up of other lucrative avenues employment and dwindling defence budget followed it.*

- **Pay and allowances in the Armed Forces have been formulated like any other Group 'A' service. Though the risks and hardships involved in the profession are much more. During a research study it was found that as in 1970s, 16.60% of IAS officers drew salaries above Rs 2000/-pm while 0.32% Army officers did so. Though, the strength of Armed Forces Officers cadre is 10-11 items more than IAS cadre (Awasthy, 1986). 'Opportunity to Earn a Lot' being the prime motivator for student respondents, they find Armed Forces a 'Luke warm' career option.**
- **Opening Up of other lucrative avenues of employment like MNC, independent professionals like CAs, Doctors, Lawyers etc have made Armed Forces appear as a 'Sun-setting Industry'. The profession of Arms is considered as an unskilled job to be taken up as a last resort. The accordance of seventh rank to Defence Services by student respondents testifies it.**

- **Dwindling Defence Budget in terms of GDP, slow modernization of Armed Forces in terms of procurement of new weapon systems and upgradation of existing ones erode the confidence of youngsters in Armed Forces as a career option. MBT 'Arjun', acquisition of Advanced Jet Trainer (AJT) and Air Craft Carriers for Indian Navy are yet to be realised.**

Table No. 6.28A

Differences in Reasons of Shortfall in Three Wings of the Armed Forces

While the shortfall in Army is to the tune of 30% of the total sanctioned strength of 43,319; Indian Navy (IN) and Indian Air Force (IAF) has deficiency of 5.68 % and 7.47% respectively. Though pay and allowances are similar in three services; however, working conditions differ markedly as shown below: -

Ser No.	Factors	IA	IN	IAF
(a)	(b)	(c)	(d)	(e)
1.	Recruitment and selection			
	(a) Written Test	Common NDA and CDSE Tests. Humanities and Science stream candidates are equally preferred.	Science stream 10+2 and Graduation required for various branches except Logistics and Administration.	Science stream 10+2 and Graduation required except for Logistics and Administration.
	(b) SSB Interviews	Common Personality, Psychological and Intelligence tests at common centres – Allahabad, Bhopal, Bangalore and Mysore.	Common Personality, Psychological and Intelligence tests at common centres – Allahabad, Bhopal, Bangalore and Mysore.	Except Pilot Aptitude Battery Tests (PABT), other tests are common. Air Force selection centres are at Dehradun and Varanasi. PABT is administrated once in a lifetime. Those

Ser No.	Factors	IA	IN	IAF
(a)	(b)	(c)	(d)	(e)
3.	Quality of Work Life (QWL)	Poor QWL. Poor delegation of responsibilities and over supervision curbs initiatives of subordinates.	Better than IA	Best due to liberal work culture.
4.	Type of Leadership	Predominantly authoritarian and on occasions benevolent autocratic style. Traditions are inherited from the British Indian Army.	Participative style based on traditions evolved after independence.	Participative (IAF traditions evolved after independence).
5.	Family Accommodation Problem	Most Acute	Lesser than IA	Lesser than IA
6.	State of Development of workstations.	Least Developed especially stations in the North-East and J&K.	Highly developed work stations eg. Mumbai, Cochin, Chennai, Vizag, Chilka, Kolkata and New Delhi.	Better than Indian Army and lesser developed than Indian Navy.
7.	Susceptibility to Frequent Unscheduled Moves.	Maximum susceptibility. It is due to frequent deployment on IS duties/CI operations/Training Exercises	Much lesser than Army. Internal security situation in most Naval stations is peaceful.	Better than IA
8.	Quality of Men Under Command.	Obedient and god followers. Lack initiative and resourcefulness due to centralized work culture, lower educational standards and poor socio-economic and rural background of subordinates. Need supervision for task accomplishment.	Men are educated, initiative takers and more resourceful than IA. Personnel Below Officer Ranks (PBOR) need very less supervision for accomplishment of assigned tasks.	More or less same as IN.
9.	Span of control	Maximum due to requirement of team work.	Lesser than IA	Least due to compartmentalized work culture.

(Part-III)

Ser No.	Factors	IA	IN	IAF
(a)	(b)	(c)	(d)	(e)
10.	Opportunities for Personal Growth and Development	Least opportunities due to postings at far flung under developed areas.	Better opportunities due to posting at developed stations.	Better than Army and lesser than Indian Navy.
11.	Post Retirement Resettlement Prospects.	Bleak prospects. Personnel get absorbed for security duties generally.	Better prospects due to qualification acquired during in-service period.	Same as IN.
12.	Growth and Development of children.	Poor growth. It is due to prolonged separation of families from personnel.	Reasonable growth and development.	Same as IN.
13.	Popularity Rating Amongst youth.	Lowest	No. 2	Highest
14.	Matrimonial Prospectus	Poorest due to least opportunities of cohabitation and unstable family life consequently.	Better than Army due to stable family life.	Same as IN.
15.	Places of Posting	Many times postings are to under developed field areas like Line of Control (LC)/Counter Insurgency (CI) operations areas.	Usually developed stations unless sailing on high seas. Best of all the three wings.	Better than Army. Very few stations like Bagdogra (Assam), Dinjan (Nagaland) and Thois Air Field (Leh) are under developed townships.
16.	Work Culture, state of Regimentation and Camaraderie.	Centralised control of resources, poor delegation, over supervision. Highly regimented work culture especially in Arms like Infantry. High state of cohesion and camaraderie amongst personnel.	Officers and Personnel Below Officer Ranks (PBOR) have formal relationship. Lesser power distance due to high educational standards and awareness levels of PBOR.	Same as IN.

6.287 Amongst the professional Hazards Various factors listed by Defence Respondents in descending order were risks of being disabled and martyred in battle, all India and global service liability, tough and harsh living conditions with high risk factor and mental stresses due to prolonged deployment on IB/LC/IS Duties/CI operations. Refer table and bar graph 6.28. Subjectivity in performance appraisal leading to unfair promotion board results and super session was rated as No. 1 reason for progressive youth shying away from the Armed Forces. Other reasons in descending order of frequency were steep pyramidal hierarchy leading to stiff competition for promotion (No. 2), unrealistic pay and allowances vis-à-vis hardships and risks involved (No. 3), early retirement age of its personnel (No. 4), risks of being disabled/martyred during training/battle (No. 5), frequent separation of personnel from their families (No. 6), autocratic style of leadership in the Armed Forces (No. 7), frequent unscheduled moves of personnel (No. 8), poor growth and development of children of Defence personnel (No. 9), Scandalous defence deals (No. 10), Opening up of other Lucrative Avenues of Employment (No. 11), Lack of Amenities of Urban Environment (No. 12), Snobbish life style of some Armed Forces Officers (No. 13), Breakdown of Joint Family System (No. 14), Unimaginative Media Campaign 'Do you Have it in You?' (No. 14), Poor PR and Media Relations (No. 15), Lack of patriotism and nationalism (No. 16), Tough selection Standards (No. 16), All India and Global Service Liability (No. 17), Rigid and Stringent Disciplinary Code of Conduct (No. 18), Tough Living conditions with High Risk Factor (No. 19), Life of Uncertainties (No. 19), Loneliness and Boredom (No. 19), politicization of the Armed Forces (No. 20), Dwindling Spirit of Adventure and Masculinity in Today's Youth (No. 20), Accelerated Aging Process (No. 21), mental stresses due to prolonged deployment on IB/LC/IS Duties/CI operations, (No. 22), Dwindling Defence Budget (No. 22), Lack of Internal cohesion in the Officer's Corps (No. 22), Emerging single

child Norm (No. 23), Apathy of Civil Administration (No. 24), Vulnerability to Marital Discord (No. 25), Unhealthy Intra and Inter Services Rivalry (No. 26), Declining status of Armed Forces Personnel (No. 27), Growing Dichotomy About Armed Forces As a Career (No. 27), Corruption in Recruitment and Selection (No. 28), Dismal Matrimonial Prospects (No. 29) and Limited Intellectual Development and Poor self growth prospects (No. 30).

6.288 Inference: *The reasons for shortfall of manpower in the Armed Forces are manifold. Now that the media has become a powerful tool to shape public opinion about the Armed Forces, the events and activities are being reported regularly. The awareness of the public about military affairs is increasing. In the face of other softer options, the bright youth shy away from the Armed Forces. There is an urgent need to restructure our recruitment policy and mitigate/eliminate those harsh service conditions, which deter bright youth from joining the Indian Military.*

6.29 Degree of Effectiveness of Measures Employed by the Armed Forces to overcome the Shortfall of Officers. *The services Selection centers and top brass of the Armed Forces are also aware of the key problem of shortfall of officers in Defence Services. A number of measures have been instituted to overcome the deficiency of officers. In this section, we have analysed the Degree of effectiveness of these measures as perceived by Defence respondents. The respondents were asked to rank various factors. Using the methodology explained at the footnotes to the table arrived at the cumulative scores. Improving promotion prospects by reducing service requirement for substantive ranks of captain/Equivalent (from 6 to 5 years), major (from 11 to 10 years) and Lt Col (from 21 to 20 years) was found to be the most effective measures. Enhanced*

responsibilities with increase in pay and allowances that accrue with promotion possibly motivate service officers the most. Motivating 'C' certificate qualified NCC cadets for entry into the officer's cadre. Two to three years of training for college graduates in military subjects is ideal for development as effective military leaders. The third most effective measure was increasing the vacancies of short service commissioned officers (SSCOs). Grant of short Service Commission for 5-10 years enable youngsters seek adventurous life style, glamour of uniform and learn management styles of the Armed Forces. If they find the service conditions conducive to their choice, they have the option to continue by opting for permanent Regular Commission. Else, they may leave for greener pastures, if the 'going' appears tough. Thus, SSCO's may have the taste of both kinds of lives. Such released SSCO's are beneficiaries of age relaxation and seats reservation in various state and central Services. Crisis management learnt in Armed Forces and disciplined life stand them in good stead outside. Introduction of stipend of Rs 8000/- pm during the last six months of commission training was the fourth most effective measure. IAS/IPS and other civil services officers are entitled to full pay and allowances right from the first day of their training. Their training period is reckoned towards the pensionable service unlike Armed Forces officers. Raising of Rashtriya Rifles, a paramilitary force under Ministry of Home Affairs was the fifth most effective measures. Manned by personnel of Regular Army and budgeted by Ministry of Home Affairs, the force has officers of all arms and services. This has reduced the employment of regular Infantry Officers on counter Insurgency tasks. Encouraging women officers to join the Armed Forces was found to be the sixth most effective measure. The profession of arms, once a bastion of males, has opened its doors to volunteering women candidates to overcome shortfall of officers. These are short service officers enrolled for five years initially. After five years, these candidates' services may be

extended to another five years on merit cum volunteer basis. The overall strength of such officers is less. Presently, Army, Indian Navy and in Indian Air Force have 600, 100 and 425 women officers respectively. It is a good beginning to bridge gender bias, on the lines of US Defence Services.

Increasing attachment period of newly commissioned officers from supporting Arms/Services (e.g. ASC, Ordnance Corps, EME etc) with Combat Arms (e.g. Infantry Armored Corps) was found to be the seventh most effective measure to overcome paucity of officers. The hardships and risky working conditions of combat Arms find very few volunteers at pre-commission academics. Therefore, to boost up the strength of front lined Infantry young officers of other Arms and Services are attached on tenure basis soon after commissioning. It is to be noted that Infantry being the basic Arm of Indian Army, all cadets at IMA/OTA are trained to be infantryman first. Therefore, the training syllabus is common for all cadets.

Re-employing retired officers of the ranks upto Colonel/Equivalent was found to be the eighth most effective measure against deficiency of officers. To maintain youthful profile of the Armed Forces, bulk of Defence Services Officers retire at the age of 54 years and below. However, this is the time when growing children need their soldier fathers on active service to support them financially in their academic endeavors. Therefore, re-employment of officers upto the rank of Colonel/Equivalent benefits both the organisation as well as the individual. The organisation continues to benefit from the rich service experience of these grayed soldiers, the individual officer is financially benefited. Besides, the continuous mental occupation even after retirement keeps the mental faculties rejuvenated.

Encouraging Junior Commissioned Officers (JCOs) and Non Commissioned Officers (NCOs) was found to be ninth most effective measure. Enhanced responsibilities and increased pay and allowances motivate Personnel Below Officer Ranks (PBOR) to work wholeheartedly. It is a dream come true for a PBOR to become an Officer. Army Cadet College (ACC) entry, Special Commissioned Officer (SCOs) are the modes of entry for PBOR to become Commissioned Officers. Such officers are known for their pragmatic approach to problems, simplicity and humility.

The media campaign 'Do You Have it in You?' was found to be the tenth most effective measure to overcome paucity of officers. The unimaginative advertising blitz is far from reality. In that ads showing young officers on the horse back, evening ball dance or tank manoeuvres are rare occasions. Such ads do not enthuse rural youth who form a sizeable chunk of volunteers for the Armed Forces.

Filling up vacancies of officers through personnel Below Officer Ranks (PBOR) e.g. Regimental Commissioned Officer, Special Commissioned Officer (SCOs), Special List (SL) Officers in Army/Equivalent entries in other two services was found to be the eleventh most effective measure. Lacking in Officer Like Qualities (OLQ) these PBOR are good followers. Thus, only miniscule percentage of officers Cadre is constituted by this community.

Mobilizing Territorial Army Officers for employment in insurgency –affected areas with Regular Units was found to be the twelfth most effective measure Territorial Army is employed as second line of defence to guard Vital Areas (VAs) and Vital Points (VPs) in the Rear

Areas in times of war. During peacetime, these are employed in aid of Civil Authority to restore law and order to maintain essential supplies and for reconstruction work after natural calamities. Normally, officers are embodied for 2-3 years tenure for employment in insurgency-infested area. TA provides part time employment to civilians for 2-3 month in a year.

Diluting the selection standards was found to be the thirteenth most effective measure to overcome shortfall of officers. Since there are no runners up during a war, lowering of recruitment standards is undesirable.

Curtailling of pre-commission training period was found to be the least effective measure. In Armed Forces, it is said that more you sweat in peace, less you bleed in war. That is to say, time invested in training to acquire soldierly skills saves human lives during war. Hence, reducing the training period to churn out more officers in the given time is countered productive.

Analyzing the average numerical score, these measures range between 'Least Effective' and 'Somewhat Effective'. It shows that these are adhoc measures. The knee-jerk reactions by the Government of India are far from satisfactory. The shortfall of manpower has continued, affecting the operational efficiency of the Armed Forces. Concrete measures are required to make the Armed Forces recruitment attractive to the youth. These measures have to be compatible with internal and external environment and socio-economic aspirations of Indian youth.

(Part-III)

Table No. 6.29 Degree of Effectiveness of Measures Employed by the
Armed Forces to Overcome Shortfall of Officers

Ser No.	Measures		IA 'F ₁ '	IN 'F ₂ '	IAF 'F ₃ '	N'	% (+)	Rank
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)
1.		Diluting selection standards.	143	11	19	173	28.83	13
2.		Media campaign e.g. 'Do you have it in you?'	156	14	24	194	32.33	10
3.		Filling up vacancies of Officers through Personnel Below Officers Ranks (PBOR) e.g. Regimental Commission Officers (RCOs), Special Commission Officers (SCOs), and Special List Officers (SL) and Army Cadet College (ACC) entries of the Army and equivalent entries in other two services.	162	13	17	192	32.0	11
4.		Curtailing Pre-Commission training period.	139	09	17	165	27.5	14
5.		Encouraging Junior Commissioned Officers (JCOs) and Non Commissioned Officers (NCOs) to shoulder enhanced responsibilities	186	17	31	233	38.83	9
6.		Increasing attachment period of newly Commissioned Officers from supporting Arms/Services with combat Arms e.g. Infantry. Institutionalizing similar measures in IN and IAF.	209	18	32	259	43.16	7
7.		Increasing intake of Short Service Commissioned Officers (SSCOs).	248	24	49	321	53.5	3
8.		Introducing stipend of Rs. 8000/- PM during Pre-Commission training to lure youth into its fold.	225	26	52	303	50.5	4
9.		Improving promotional prospects by reducing service requirement for substantive ranks of Captain/Equivalent (from 6 to 5 years), Major (from 11 to 10 years) and Lt Col (from 21 to 20 years).	296	28	56	380	63.33	1
10.		Encouraging lady Officers to join the Armed Forces.	206	19	47	272	45.13	6
11.		Motivating 'C' certificate qualified NCC Cadets for entry into Officer's Cadre.	274	27	52	353	58.83	2
12.		Mobilising Territorial Army Officers for employment in insurgency affected areas with IA Units.	151	14	19	184	30.66	12
13.		Raising Rashtriya Rifles units for counter Insurgency (CI) operations and pooling in Officers from all Arms and Services rather employing Infantry Offices alone.	245	14	25	284	47.33	5
14.		Re-employing retired Officers of the ranks upto Colonel in the appointments tenable by Captain/Major/Equivalent.	194	14	30	238	39.66	8

List of Abbreviations: Multiplication Factor for Total Scores Computation: -8

N	-	Total frequency	1.	Least Effective (LE)	-	1 Mark	(+)	-	%	=	$\frac{N \times 100}{600}$	F ₁	=	f ₁	(LE + SE + QE + VE)
IA	-	Indian Army	2.	Somewhat Effective (SE)	-	2 Marks				=	$\frac{N \times 100}{600}$	F ₂	=	f ₂	(LE + SE + QE + VE)
IN	-	Indian Navy	3.	Quite Effective (QE)	-	3 Marks	(a)	-	%	=	$\frac{N \times 100}{150}$	F ₃	=	f ₃	(LE + SE + QE + VE)
IAF	-	Indian Air Force	4.	Very Effective (VE)	-	4 Marks				=	$\frac{N \times 100}{150}$	F ₄	=	f ₄	(LE + SE + QE + VE)
							N =								
							N' =								

Table No. 6.29A Comparison of Ranking by Defence Respondents of Degree of Effectiveness of Measures Instituted.**General**

The percentage of shortfall of Officers varies from one service to another. While the deficiency is most conspicuous in Indian Army (IA), it is felt to a lesser degree in Indian Navy (IN) and Indian Air Force (IAF). Therefore, types of measures employed to overcome shortfall of officers differ from service to service. Some measures are applicable to all the three services; others are peculiar to a particular service only. Detailed computation of degree of effectiveness of various measures to overcome shortfall of officers is shown at Table No. 6.29 above in thesis. The comparative degree of effectiveness of these measures in three wings of the Armed Forces is as follows: -

Ser No.	Measures	Indian Army		Indian Navy		Indian Air Force		Overall Results	
		Total Score	Rank	Total Score	Rank	Total Score	Rank	Total Score	Rank
1.	Diluting Selection Standards.	143	XIII	11	X	19	IX	173	13
2.	Media Campaign.	156	XI	14	VIII	24	VIII	194	10
3.	Filling Up Vacancies of Officers through Personnel Below Officers Rank (PBOR).	162	X	13	IX	17	X	192	11
4.	Curtailing Pre-Commission Training Period.	139	XIV	09	XI	17	X	165	14
5.	Encouraging JCOs and NCOs to Shoulders Enhanced Responsibilities.	186	IX	17	VII	31	V	233	19
6.	Increasing Attachment Period of Newly Commissioned Officers.	209	VI	18	VI	32	IV	259	7
7.	Increasing Intake of Short Service Commissioned Officers.	248	III	24	IV	49	III	321	3
8.	Introducing Stipend during Training Period.	225	V	26	III	52	II	303	4
9.	Improving Promotion Prospects.	296	I	28	I	56	I	380	1
10.	Encouraging women to join the Officer's Cadre.	206	VII	19	V	47	IV	272	6
11.	Motivating 'C' certificate Qualified NCC cadets for entry into officers' cadre.	274	II	27	II	52	II	353	2
12.	Mobilizing Territorial Army officers for employment in Insurgency affected areas with Indian Army Units.	151	XII	14	VIII	19	IX	184	12
13.	Raising Rashtriya Rifles Units for Counter Insurgency (CI) operations and pooling in Officers from all Arms and Services rather than employing Infantry Officers alone.	245	IV	14	VII	25	VII	284	5
14.	Re-employing retired officers of the ranks upto Colonel in the appointments tenable by Captain/Major/Equivalent.	194	VIII	14	VIII	30	VI	238	8

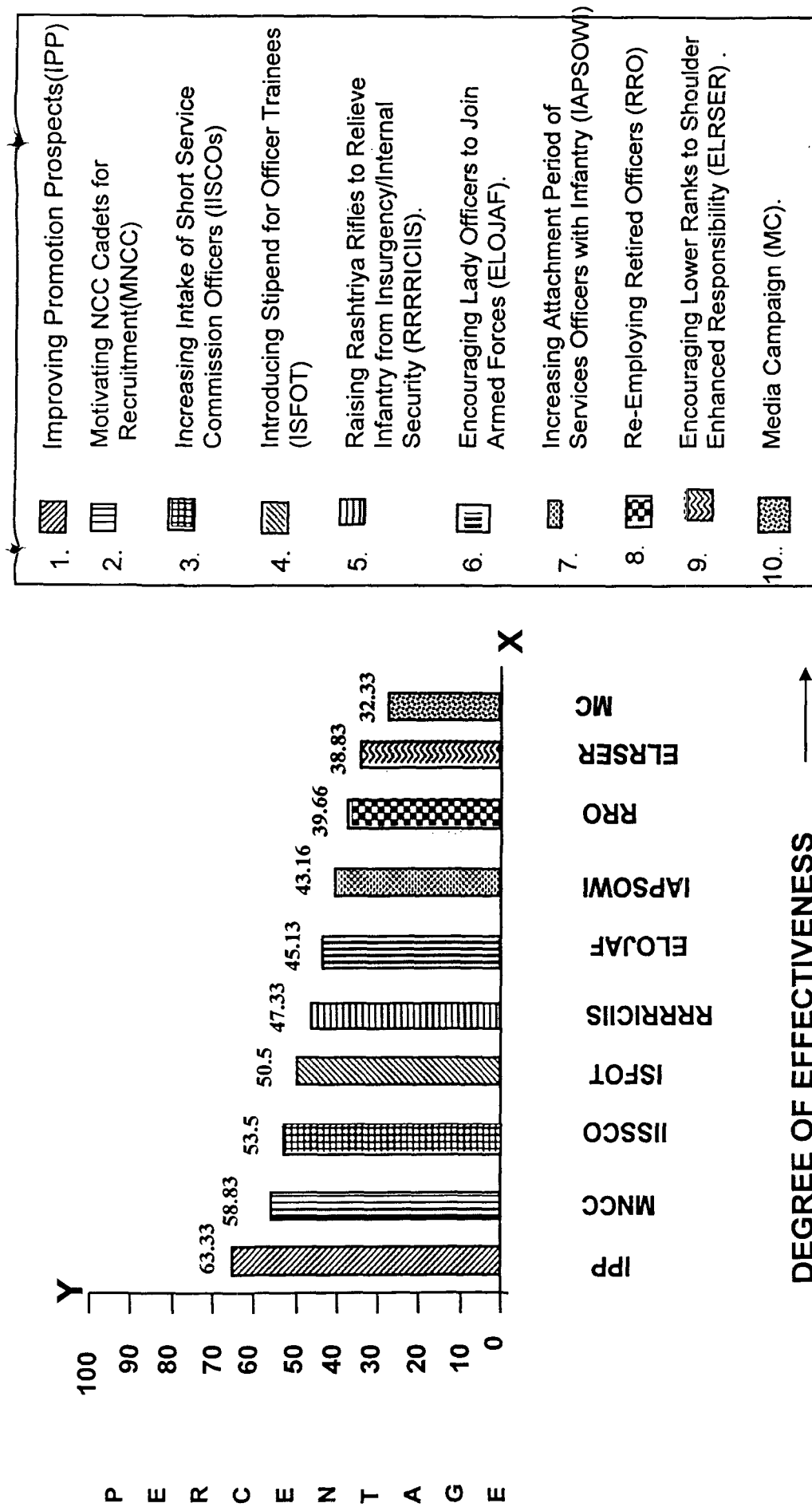


Fig. 6.29 : Effectiveness of Measures Employed by the Armed Forces to Overcome the Shortfall of Officers.

6.29A Comparative Analyses of Degree of Effectiveness of Measures Implemented to Overcome Shortfall of Officers

All respondents from Indian Army, Indian Navy and IAF undisputedly regarded 'Improvement in Promotion Prospects' as the most effective measure to overcome shortfall of officers. Presently, the bulk of the Armed Forces officers retire in the rank of Major/ Lt Col/Equivalent. Whereas in the IAS/IPS, each direct entrant rises to the rank of Joint Secretary/Inspector General of Police, equivalent to Major General/Equivalent. Secondly, it takes only 17-18 years of service to become Joint Secretary, in the Armed Forces, it takes 32-33 years of service to attain the rank of Major General/Equivalent. In this regard, the Bagga Committee Recommendations for further amelioration of promotion prospects await implementation by the Government of India.

Motivation of 'C' certificates qualified NCC cadets for Entry into the Armed Forces was unanimously considered as the second most effective measure by all three Army, Navy and Air Force respondents. Three to four years of training in NCC during acquisition of 'B' and 'C' certificates has been found to be very effective in instilling knowledge, skills and attitudes of soldiering in NCC cadets. Such cadets during course of training feel motivated for recruitment into the Armed Forces and do well as officers. Leadership qualities, camaraderie and team spirit, physical fitness and mental robustness are few attributes acquired by these cadets.

'Increase in intake of Short Service Commissioned Officers (SSCOs)' was rated as the third most effective measure by all defence respondents except Indian Navy. By enrolling higher percentages of SSCO, promotion prospects of Permanent Regular Commissioned (PRC) officers get automatically improved. SSCO on release after 5-10 years of military service should be laterally inducted into suitable civil services based on qualification and experience of such officers.

‘Introduction of stipend of Rs 8000/- pm during pre-commission training period was found to be fourth most effective measure overall. However, it was rated as No. 5 by Army respondents, No. 3 and No. 2 by IN and IAF respondents respectively. IAS/IPS trainees get full pay and allowances during training period and the training period is counted towards service. This is not so in case of Armed Forces officer trainees.

‘Raising of Rashtriya Rifles units for employment in ‘Insurgency affected Areas’ was rated as the fifth most effective measure. Earlier, employment of Infantry Battalions on such tasks had affected popularity rating of Infantry amongst youngsters. That only very few opted for such a life full of hardships and risks. Now, Rashtriya Rifles Units have officers from all Arms and Services; there by authorities have spread the risks and hardships equitably amongst officers of all Arms and Services of Indian Army. Indian Navy and Indian Air Force respondents have rated such a measure as No. 8 and No. 7 respectively. Possibly, it is due to inapplicability of this measure to their respective service.

‘Encouragement to women to join the officers cadre’, was rated as No. 7, 5 and 4 by IA, IN and IAF respondents respectively. Due to limited employment of woman in soft jobs only, their male counterparts have not taken their recruitment very kindly. The relatively comfortable and easy life of Indian Navy and Indian Air Force find these women counterparts better employable in their respective services. Hence, the effectiveness of this measure has been rated higher by these two sections of defence respondents.

‘Increasing attachment period of newly commissioned officers from supporting Arms/Services with combat Arms’ was rated No.

6 by both Indian Navy and Indian Army and No. 4 by IAF respondents. Due to risky and tough working conditions of combat Arms of Indian Army, such a measure has been instituted. Officers from other softer arms and services should also experience hardships and professional hazards. Such a measure has not been implemented in Indian Navy and IAF.

‘Re-Employment of Retired Officers of the ranks up to Colonel/Equivalent in the appointments tenable by Captain/Major/Equivalent’ was rated as No. 8 both by Indian Army and Indian Navy and No. 6 by Indian Air Force respondents. Due to early retirement age of officers in the Armed Forces, such a measure has been instituted. These re-employed officers are assigned relatively easier jobs in rear areas, keeping their age factor in view. Due to their limitations of employment, Indian Army and Indian Navy respondents find such a measure lesser effective than IAF respondents. Such officers continue to draw their last pay (drawn at the time of retirement) and serve upto 58 years of age. They have the option to quit the service with one month’s notice. And the contract of re-employment is renewable every two years.

‘Encouraging Personnel Below Officers Rank to shoulder Enhanced Responsibilities’ was rated as No. 9 by Indian Army, No. 7 by Indian Navy and No. 5 by Indian Air Force respondents. The poor literacy standard of Indian Army PBOR compared to Indian Navy and Indian Air Force restrict their employability. These PBOR lack initiative, tact and Officers –like-Qualities. They have been encouraged to take only structured decisions in specified circumstance only. Possibly, with the rising educational and awareness levels of PBOR, there will be greater delegation of responsibilities in future. As it happens in Armed Forces of developed countries like USA.

‘Media Campaign-Do you have it in you?’ was rated as No. 11 by IA respondents and as No. 8 by both IN and IAF respondents. Due to urban bias of the campaign, the rural and semi-urban youth from lower middle class find the media blitz as lack-lustrous. Life style depicted is snobbish.

‘Filling up Vacancies of Officers through PBOR’ was rated as No. 10 by both IA and IAF respondents and as No. 9 by IN respondents. Lacking in leadership qualities, initiative and creativity, these PBOR are suitable for routine jobs only.

‘Mobilizing Territorial Army Officers for Employment in Insurgency Affected Area’ was rated as No. 12 by IA respondents and as No. 8 and No. 9 by IN and IAF respondents respectively. Territorial Army is the second life of defence and its personnel are employed for rear area security during war and for internal security duties and counter insurgency tasks during other times. Territorial Army has a nucleus of Regular Army personnel. Others are part time employees who get embodied for 2-3 months in a year for training. However, these units are being employed for a full 2-3 years tenure in Insurgency affected areas.

‘Diluting Selection Standards’ was rated as No. 13 by Indian Army respondents and as No. 10 and No. 9 by IN and IAF respectively. Lowering of selection standards to accommodate inferior candidate is highly undesirable. Because during a war, there is no prize for runners up. Due to professional hazards and poor promotion prospects in the Armed Forces, meritorious students opt for other lucrative avenues available in the country. Though, there is no dearth of unemployed youth in India but of late, poor quality youth who do not find place in other services opt for the Defence Services as a last resort.

‘Curtailement of Pre-Commission Training Period’ was rated as No. 14 by IA respondents and as No. 11 and No. 10 by IN and IAF respondents. This measure militates against the popular saying, ‘The more you sweat in peace, the less you bleed in War’. It was a short-lived measure. The original training period has been restored.

***Inference:** Analyzing the average numerical score, these measures range between ‘Least Effective’ and ‘Somewhat Effective’. It shows that these are adhoc measures. The knee-jerk reactions by the Government of India are far from Satisfactory. The shortfall of manpower has continued, affecting the operational efficiency of the Armed Forces. Concrete measures are required to make the Armed Forces recruitment attractive to the youth. These measures have to be compatible with internal and external environment and socio-economic aspirations of Indian youth.*

6.30 Suggested Measures By Defence Respondents for Attracting Youth towards the Defence Services.

In the third question of the questionnaire, the defence respondents were asked to suggest measures that can improve the attractiveness of Armed Forces as a career option for modern day youth. In this section, we have measures suggested by Defence respondents to attract youth towards the Defence services. For ease of understanding, these measures have been categorized into various 14 types – Manpower Planning, Recruitment and Selection, Training and Development, Performance Appraisal, Compensation, Separation, Resettlement and Out placement, Media Management, Security, Leadership, greater sensitization of Civil Administration to problems of soldiers and their families, Manpower Planning, Organisational Restructuring and Career Management of Officers.

Table No. 6.30
Suggested Measures by Defence Respondents for
Attracting Youth

Ser No.	Suggested Measures for Attracting youth by Defence Respondents.	IA		IN		IAF		OS		Relative Position	
		'f ₁ ' (c)	% (d)	'f ₂ ' (e)	% (f)	'f ₃ ' (g)	% (h)	'f ₄ ' (i)	% (j)	(k)	(l)
1.	Manpower Planning: Constitution of National Manpower Commission	41	32.28	06	75.0	07	46.66	54	36.0	19	
2.	Recruitment and Selection: Conscription for 5-10 years.	56	44.09	02	20.0	07	46.66	65	43.33	16	
3.	Training and Development: (a) Reservation of seats in Educational Institutions. (b) Questions on Defence Services in all Examinations. (c) Education: Correspondence courses and establishment of Defence University. (d) Implementation of Code of Ethics for Officers. (e) Introduction of Quiz on Armed Forces. (f) Training of civilian officers in matters military. (g) Officers Cadre Management Policies need revision.	111 89 38 40 37 29 28	86.71 70.07 29.92 31.25 28.90 22.33 22.04	07 04 07 Nil 04 Nil Nil	87.5 50.0 87.5 NA 50 NA NA	13 07 11 07 Nil 07 02	86.66 46.66 73.33 46.66 NA 46.66 13.33	131 100 56 47 41 36 30	87.3 66.66 37.33 31.33 27.33 24.0 20.0	2 9 18 21 22 25 27	
4.	Performance Appraisal: Need for objectivity.	117	92.12	05	62.5	07	46.66	129	86.0	4	
5.	Promotion: Need for Assured Career Progression.	123	96.85	07	87.5	11	73.3	141	94.0	1	
6.	Compensation: (a) Realistic Pay Scales. (b) Cantonments with Family Accommodation and Amenities in Border Areas. (c) 100% Family Accommodation in Peace Areas. (d) Improvement in Quality of Work-Life (QWL).	100 113 104 41	66.66 88.97 81.25 32.28	02 Nil Nil 06	20.0 NA NA 75.0	11 Nil 06 07	73.33 NA 20.0 46.66	113 113 110 54	75.33 75.33 73.33 36.0	6 6 7 19	

Results and Discussion
(Part-III)

Ser No.	Suggested Measures for Attracting youth by Defence Respondents.	IA		IN		IAF		OS		Relative Position
		'f ₁ '	% (1)	'f ₂ '	% (2)	'f ₃ '	% (3)	'f ₄ '	% (4)	
		(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	
(a)	(b)									(k)
7.	Resettlement and Out placement.									
	(a) Suitable Appointments in Civil Administration for Ex-servicemen.	87	68.5	04	50.0	12	80.0	103	68.66	8
	(b) Appointment for Retired Officers in Decision Making Bodies like Corporation, Universities etc.	52	40.94	04	50.0	Nil	NA	56	37.33	18
	(c) Lateral Induction of Defence Services Officers into Similar Jobs in Civil Services.	117	92.12	05	62.5	8	53.33	130	86.66	3
	(d) A full career in government for Ex-Servicemen up to the age of 60 years.	110	85.93	07	87.5	11	73.11	128	85.33	5
	(e) Reorganize departments for welfare of Ex-Servicemen at state and central level.	42	32.81	03	37.5	05	33.33	50	33.33	20
8.	Organisational Restructuring.									
	(a) Separate Pay Commission for Defence Services.	103	81.10	03	37.5	07	46.66	113	75.33	6
	(b) Need for Better coordination between Military and Civil wings of Defence Services in Ministry of Defence (MoD).	38	29.92	02	25.0	Nil	NA	40	26.66	23
	(c) Formation of Armed Forces Pay Review Board.	56	44.09	04	50.0	11	73.33	71	47.33	15
	(d) Appointment of Chief of Defence Staff (CDS).	49	38.58	04	50.0	09	60.0	62	41.33	17
	(e) Introduction of Integrated and Interacting System in which Politicians, Bureaucracy and the Military participate collectively for Decision Making.	41	32.28	02	25.0	04	26.66	47	31.33	21
	(f) Better Political management of the Armed Forces.	46	36.22	01	12.5	Nil	NA	47	31.33	21
	(g) Need for Socio-political Interaction with out- side world.	37	28.90	04	50.0	Nil	NA	41	27.33	22
	(h) Defence Minister should be one of the Retired Chiefs of the Armed Forces.	23	18.11	Nil	NA	Nil	NA	23	15.33	28
	(i) Establishment of Defence Services of Bank.	28	21.87	Nil	NA	07	46.6	35	23.33	26
	(j) Formation of Defence Officers Association.	28	21.87	Nil	NA	02	13.33	30	28.0	27
	(k) Officers' cadre to be constituted by a high proportion of Short Service Officers (SSCOs).	81	63.77	03	37.5	11	66.66	94	62.66	12

Ser No.	Suggested Measures for Attracting youth.	IA		IN		IAF		OS		P		Relative Position
		'f ₁ ' (c)	% (1) (d)	'f ₂ ' (e)	% (2) (f)	'f ₃ ' (g)	% (3) (h)	'f ₄ ' (i)	% (4) (j)	a	(k)	
9.	<i>Greater Sensitization of civil Administration towards Domestic Problems of soldiers</i>	91	71.65	02	20.0	05	33.33	98	65.33	r	10	
10.	Media Management.									t		
	(a) Institutionalisation of official codes for Greater Military Media Interaction.	81	63.77	05	62.5	11	73.33	97	64.66	I	11	
	(b) The need for a specialised organisation to project the unique character of challenge.	71	55.90	04	50.0	09	60.0	84	56.0	I	13	
	(a) Rationalisation of warrant of precedence.	67	52.75	06	75.0	11	73.33	84	56.0	I	13	
	(b) Healthy civil Military Relations.	49	38.58	03	37.5	04	26.66	56	37.33)	18	
	(c) National Literary Effort for Greater Awareness about Armed Forces.	31	24.21	Nil	NA	07	46.66	38	25.33		24	
	(d) Awareness Campaign for Ex-servicemen about their Collective Economic Contribution.	28	21.87	02	25	05	33.33	35	23.33		26	
11.	Internal Security. Better Internal Security management by the Politicians so as to Reduce employment of Armed Forces on such tasks.	81	63.77	01	12.5	Nil	NA	82	54.66		14	
12.	Ethics Need for Introspection by Senior Leadership of the Armed Forces.	58	45.31	01	12.5	03	20.0	62	41.33		17	

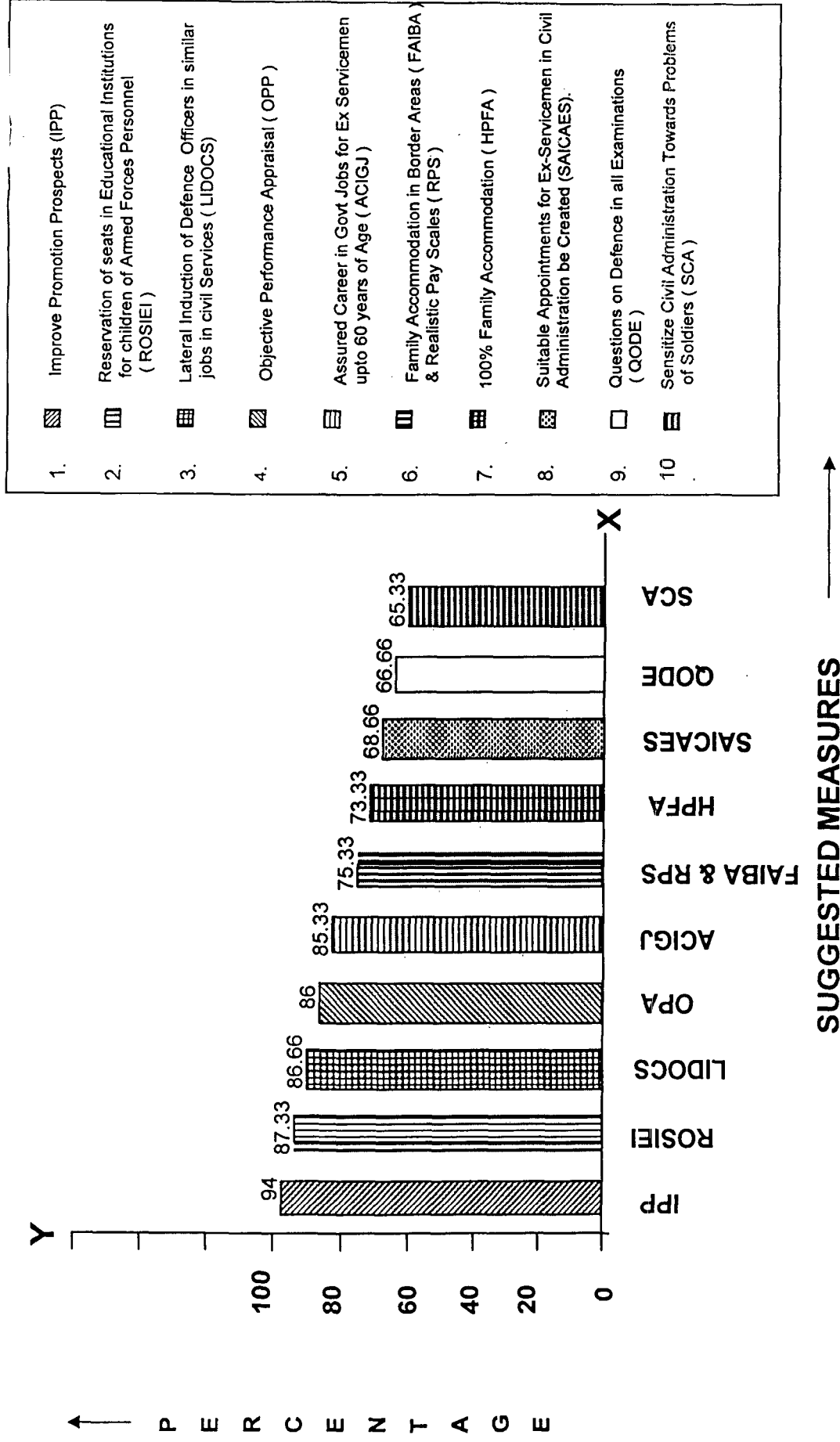


Fig. 6.30: Suggested Measures in Descending Order for Attracting youth towards the Armed Forces (By Defence Respondents).

Suggested Measures for Improving Attractiveness of Defence Services**6.301 Manpower Planning**

National Manpower Commission should be constituted to formulate policies and monitor their implementation. The principle should be to utilize trained manpower by re-mustering it for other skills within the service or other national purposes. This will reduce manpower costs and increase attractiveness of a career in the Armed Forces.

6.302 Recruitment and Selection

To overcome 30% shortfall of officers, compulsory military service or conscription should be introduced. The military profession being unpopular in most of the developed democratic countries, there are very few volunteers for it. USA practises conscription wherein every citizen has to render 3-4 years of compulsory military service as a national obligation. Govt of India has mooted a proposal for compulsory two months of military service in the first five years of service for all Group 'A' Central Services Officers. This way each Group 'A' service officer would have served for one year in the Defence Services in the first five years. Once the proposal is implemented, conscription will be made as a mandatory requirement for promotion in various civil services including corporate sector.

6.303 Training and Development

Amongst various measures suggested by Defence Respondents to improve the ranking of Defence Services with regard to training and development, reservation of seats for wards of Defence personnel was ranked as No. 1 measure. The other measures in the decreasing order were inclusion of questions on Defence services in all examinations,

popularization of distance learning programmes and establishment of Defence Universities, implementation of Code of Ethics for officers, introduction of Quiz on Armed Forces for students, training of civilians in military matters and revision of policies on Officers Cadre Management.

- Due to frequent unscheduled moves of Defence personnel, their children's education is affected greatly. In many states, vacancies in professional courses like MBBS and Engineering, seats are reserved for students, who have spent more than specified period in that state. Thus, many children of defence personnel are loser on this score. *A fair education policy in a state and at the Centre should waive off the domicile criteria for the wards of defence personnel.*
- *For greater awareness about the Armed Forces, questions should be included on Defence matters in all examinations of schools, colleges and universities.* Some universities have Military Science or Strategic Affairs as a subject in institutions. However, due to poor response of students, the economic viability of such programmes become questionable. Secondly, poor employment potential of this subject discourages many keen students to pursue higher studies in this discipline. Generally, Generals and Officers of Indian Foreign service are considered expert strategic analyst. Thus, leaving employment seeking young military scientists and strategists high and dry. To popularize the subject, a Defence University is being set up at Amritsar in Punjab. In addition, there is a need for introduction of quiz programmes both in the print and electronic media to arouse interests of citizens in military affairs.
- For greater literacy in the Armed Forces, correspondence courses, On-Line education programme transmitted by IGNOU like 'Gyan Vani' on All India Radio and 'Gyan Darshan' on Door Darshan should be popularized for personnel posted in far-flung Border

Areas. Besides, being cost effective, such programmes dispense with formal classroom attendance. Such educational amelioration of all ranks will benefit both the individual and the organization. The organization will benefit through improved decisions making capability of its educationally upgraded personnel. Individuals will be better poised for post retirement settlement. Armed Forces HQ have already set up Regional Centres of IGNOU at all locations of command HQ. In addition, officers are encouraged to avail study leave.

- *In order to emphasize the morality of Military Service and to shield officers corps from disruptive societal values, a Code of Ethics need to be adopted for each service. It may be on similar lines as for members of Judiciary or Journalists.* Some precepts for inclusion are the recognition of the primacy of personal honour, obligation of duty, command and professional approach, subordination of self/group/branch interests in favour of organizational interests. *General Chetwode has aptly said, 'Safety, Honour and Welfare of the Country come first, always and every time; Welfare, Safety and Comforts of the Men you Command come next; Your Own Ease, Comfort and Welfare Come Last, Always and Every time'.*
- *Civilians posted at Armed Forces HQ and at Ministry of Defence (MOD) should be made to undergo a capsule course about Military Affairs by United Services Institution of India.* This will enhance the understanding of civilians about Armed Forces.
- *Officers Cadre Management Policies* should be redrawn to a more challenging, varied and rewarding career. This will improve the job satisfaction levels, motivation and morale of officers Corps.

- 6.304 *The present Performance Appraisal System has an element of subjectivity.* It relies heavily on the Initiating Officer (IO). There is a need to *replace it by 360⁰ Performance Appraisal.* An appraisee needs to be evaluated not only by these superiors but also by his peers, subordinates and others, with whom he interacts during the period under review. This will bring in better understanding between appraiser and appraisee. Presently, the Armed Forces use the Annual Confidential Reports (ACR) to control the behaviour of officers making it the instrument for promotion, decision regarding postings and course seats. Performance Appraisal is not seen as a feedback to the officer regarding his strength and weaknesses and to give him an opportunity for self-initiating change and development. The organization is not perceived as benign or even neutral. Officers bitterly deride it as an elimination and not selection system.
- 6.305 *Promotion Policies in the Armed Forces need to be rationalized on the lines of IAS/IPS/Allied Forces.* Officers' seniority should be refixed after 10 years of service. A faster track should be afforded to officers of exceptional merit. Each officer should enjoy same promotion prospects as in IAS/IPS/Allied Services. The present trend of inflated and deflated numerical ratings in ACR can be curbed by introduction of this system. The Government of India constituted Bagga Committee to look into the promotion prospects of Armed Forces officers. The committee submitted its report during July 2002 suggesting additional vacancies at Lt Col and above and ACP upto the rank of Colonel/Equivalent. The recommendations have not yet been implemented by the government. This will require a major restructuring of the Field Formations, Ship and Off-Shore Establishments and Air Force Stations.

6.306 *Amongst the measures suggested with regard to Compensation, realistic pay scales was the most dominant one.* It was followed by development of cantonment with family accommodation and amenities in border areas, 100% family accommodation in peace areas and improvement in Quality –of-Work –Life (QWL).

- Pay scales for Armed Forces personnel should be made more realistic, in tune with hardships, risks, qualifications, responsibilities involved in a particular rank and appointment. Like any other foreign armies, 'X' factor compensation covering the professional hazards (Military Service Pay) needs to be considered. This will make the Armed Forces attractive to youngsters. The former Chief of Army Staff and presently Rajya Sabha MP, General Roy Chaudhary rightly observed that for effective security of the country, citizens will have to pay a high premium in the form of better Pay and Allowances to all ranks of Armed Forces.
- *Cantonments with family accommodation and amenities should be established in border areas.* It will enable soldiers to stay with family and perform better on the job. Pakistan Army and other western armies have cantonments very close to border. Secondly, 100% accommodation should be assured for personnel in peace areas. The Government of India has sanctioned an ambitious Rs 20,000 Crores Armed Forces Family Housing Project, to be implemented in a phased manner. Presently, Infantry soldiers in peacetime locations have only 14% of family accommodation. This permits them to stay, for 6-8 months only with their families during a peace tenure of two and a half to three years.

- *Quality -of -Work-Life (QWL) of personnel needs to be improved by providing them modern gadgets.* Replacement of 7.62mm Self Loading Rifle (SLR) by 5.56mm Indian National Small Arms System (INSAS) or AK-56/47, complete automation of office work, better protective gears like bullet proof jackets and helmets for troops operating in insurgency environment, provision for Armoured wheeled cars for movement in built-up-areas in militancy affected areas, thermal imagers and image intensifiers for effective surveillance need attention. Similarly, provision of Advanced Jet Trainers (AJT) for IAF is bound to reduce the present aircraft accident rate. Obsolescent aircraft carrier INS Virat needs to be discarded and a sophisticated aircraft carrier be acquired for Naval personnel. Improved and new generation weaponry boosts confidence, morale and motivational levels of personnel. This in turn, improves the attractiveness of Armed Forces as a career option.

6.307 *Amongst the 'Resettlement and Outplacement' measures suggested by Defence Respondents, lateral induction of Defence Services Officers into similar jobs in civil services was rated as No. 1 measure. It was followed by a full career in government for ex-servicemen upto the age of 60 years, creation of suitable appointments in Civil Administration for ex-servicemen, appointment of retired Armed Forces Officer in decision making bodies like Corporation, Universities etc and establishment of a department for welfare of Ex servicemen both at the central and State level.*

- *Armed Forces personnel retire at an early age and provide a vast reservoir of trained and disciplined manpower. Lateral induction of Armed Forces Officers into similar jobs in PSUs and civilian setup will go a long way in ameliorating the*

resettlement problems of Officers. It should be done on voluntary cum merit basis. Naval Officers and Air Force pilots find suitable employment with Merchant Navy and Civil Aviation due to their similar service experience. Army Officers, especially from Infantry are considered trained in security related matters only. In fact, these officers are skilled in all aspects of Human Resources Management (HRM), event management, financial and managerial accounting as holder of Regimental, Public Fund and Imprest Fund and hospitality aspects, being the manager of Officers Messes.

- *A full career in government for ex-servicemen upto the age of 60 years will considerably reduce the resettlement task.* Presently, the truncated career, wherein bulk of the officers retire in the age bracket of 52-54 years is unjust. During this stage, the children of the personnel are too young to be settled both vocationally and matrimonially. The parity with other State/Central government officials with regard to age of retirement will strengthen a sense of social security. It will improve the attractiveness of Armed Forces as a career.
- *Suitable jobs should be provided to Ex-servicemen in Civil Departments. The government should institute a mechanism that ensures re-employment of all Ex-servicemen on voluntary basis. Presently, the state of re-employment is very dismal. Only 30-40% of retiring personnel get absorbed.* The present departments for welfare of ex-servicemen called Kendriya Sainik Board, Rajya and Zilla Sainik Board need to be re-organized and restructured. A legislation is required to be enacted both at the Centre and the states. Placement being a highly specialised field, professional firms should be hired for this purpose. Retirees

Association should be homogenous. Each state ought to have a tri-service association under an umbrella confederation. They should Control their environment and promote their social, economic and representational interests.

- *Many retired senior officers of the Armed Forces have done successful tenures as governors of insurgency affected states, Vice-Chancellors of crisis-ridden Universities, Chairman of PSUs, State and Union Public Service Commissions.* However, the number of such officers in such appointments is negligible. Bureaucrats and IFS Officers due to their close proximity to politicians manage such plum posts for themselves.

6.308 *Amongst the measures suggested for improving the attractiveness of Armed Forces as a Career Option, constitution of a separate Pay Commission was rated as No. 1. It was followed by constituting an officers' cadre by a high proportion of Short Services Commissioned Officers (SSCOs). In addition, respondents suggested formation of Armed Forces Pay Review Board, appointment of Chief of Defence Staff (CDS) and introduction of an Integrated and interacting System in which politicians bureaucrats and the military participate collectively for decision making. Other measures suggested in descending order were better political management of the Armed Forces, need for socio-political interaction with outside world, requirement for better coordination between military and civil wings of Defence Services in MoD, establishment of Defence Services Bank and election of Defence Minister from amongst one of the retired Armed Forces Chiefs.*

- *Keeping in view the peculiar service conditions in the Armed Forces, a separate Pay Commission and Pay Review Board should be constituted.* Such a commission should take into account hard and risky operational and living Conditions, frequent unscheduled movements all over India, separation from families. It is generally observed that Chairmen and non-bureaucrat members of pay commission are sympathetic to the Defence Services when they visit and see the conditions in units serving in frontier and other field areas. However, they seem to become oblivious of these observations when making recommendations to the Government. Possibly, it is under the influence of members who are either serving or former bureaucrats. Hence, there is a requirement of a separate pay Commission for the Armed Forces. *A vast majority of political leaders have limited idea of the Defence Services, except perhaps the fact that they participate in Republic Day Parades. So, it has been a case of 'Remembering God and the Defence Services only when facing trouble.'*
- *Officers Cadre in the Armed Forces should be constituted by a high proportion of Short Service Commissioned Officers (SSCOs).* No. officers' cadre can afford to fill its entire requirement by recruiting Permanent Regular Commissioned (PRC) Officers. This will lead to a large percentage of these officers being superseded at the ranks of Major, Lieutenant Colonel and Colonel (in all about 70%). Supersession leads to demotivation and no army can carry such a large percentage of demotivated officers. After due analysis, it was established in 1980 that PRC officers should form only about 30-35% of the cadre strength and the balance should come from 'Supporting Cadres' like the 'Special List Commission' 'Army Cadet College

Entry Scheme, and *Short Service Regular Commission (SSRC)*. Since Regimental Commission and Special List Commission Cadres have their limitations, the bulk of the supporting Cadre has to come from SSRC category. Recruitment into the SSRC category is made from Non Technical Graduates who are taken for an initial period of engagement of five years, extendible in selected cases to ten years. As an incentive to attract candidates in adequate number, about 30 to 50 percent of them are selected for the grant of PRC after completion of five years of commissioned service.

- *For effective strategic, tactical and technical control of the Indian Armed Forces, the appointment of Chief of Defence Staff (CDS) need to be institutionalised.* This will ensure one-point advice to the Government and will discharge his operational responsibility through theatre commanders. The respective chiefs of staff of three services, with their span of control made more manageable, will be able to devote more time to presently neglected housekeeping functions. This one measure will also improve jointness – doctrinal, operational and organizational. And also cost – effectiveness of the Armed Forces.
- *An integrated and interacting system in which politicians, bureaucrats and the military participate collectively should be introduced.* This will improve the cost effectiveness of decision making and develop mutual understanding of complex issues having multi dimensional character.
- *Better Political Management of the Armed Forces is the need of the hour.* Political attitude towards the Armed Forces is characterised by acquiescence to government proposals and appropriations. National security is every citizen's responsibility,

which he exercises through his elected representative. The latter, through genuine interest and informal debate is expected to keep the government alert towards defence requirements. They hold it accountable for lapses and improve the management of the Armed Forces. Political parties when in opposition should have defence spokesperson and develop a group of party men who are considered experts in national security affairs. *A Defence Information System designed to provide information on security related issues, and to arrange presentations , seminars and visits for the elected representatives should be established.* Political parties should support candidature of retired military officers to the Upper House of Parliament so that expert advice on military matters is instantaneously available. *Political leaders should adopt paternal attitude towards the Armed Forces, because of their exceptional liability and commitment.* The role of the Armed Forces should figure in the constitution of India. This is an essential step for building national consensus on defence missions. *The government and the Armed Forces should encourage the expansion of the strategic community by referring strategic, defence and organizational issues to the universities and think tanks.*

- *There is a need for greater socio-political interaction with outside world.* Links can be established through exchange of personnel between Universities and other Military Training Establishments. *Deputation of officers to other organs of the government, socializing with other officers and professions should be encouraged by making them honorary members of our Services Institutes. This will sensitize them to the needs of the Armed Forces.*

- *There ought to be mutual respect and confidence between the military and civilian arms of the Ministry of Defence (MoD).* Integrated planning, implementation, independent evaluation and monitoring of DRDO and defence production projects are required.
- *The proposal to establish an Army-Navy-Air Force Bank may be examined in detail.* Ex-servicemen need to be made more aware of their collective contribution in economic terms also e.g., the land and property they own. And their 'Purchasing Power' in the community, which creates job and support services. They should assert their due place in community affairs.
- *The three services may form Defence Officers' Association.* It should be apolitical, non-profit making with the aim of promoting proper recognition of military profession. It should seek to educate the public, the political elite and business houses on important defence related issues.
- *Defence Minister need to be one of the retired Armed Forces chiefs as in USA, UK or Israel.* Presently, the political leaders lack strategic vision and understanding of military affairs. He should be a perceptive manager of a high bipartisan standing inspiring admiration and respect. His office should have a small military staff for independent input and advice on latest operational developments.

6.309 *Sensitize Civil Administration towards the domestic problems of soldiers. Mr. George Fernandes, Defence Minister of India had*

directed bureaucrats in MoD to visit soldiers in Siachen Glacier for a better understanding of their needs and problems. The accountability of bureaucrats towards the Armed Forces and their families needs to be ensured through a mechanism. Their present apathetic attitude needs to be set right.

6.310 *Amongst the various measures suggested with regard to Media Management, institutionalisation of Official Codes was rated as No. 1. It was followed by the need for a specialised organization to project the unique character of challenge. Other measures in decreasing order were rationalisation of warrant of precedence, healthy Civil Military relations, national literary effort for greater awareness about Armed Forces and awareness campaign for ex-servicemen about their collective economic contribution.*

- *Detailed Official Codes should govern service media interaction.*

The erstwhile veil in the form of 'Holy Cow' image of the Armed Forces needs to be pierced in the interest of objectivity in reporting. The 'Right to Information' of the citizens in democratic India needs to be preserved. However, need for retaining security of tactical information and interests of nation entail filtering of information during a National Emergency. The role of media as a force multiplier during Kargil War amply demonstrated to arouse patriotic fervour. And Indian Public contributed generously for war widows and disabled soldiers.

- *There is a need for establishment of a specialised organization in each service and at chief of staff committee (COSC) level to persistently project the unique character of challenge of life in*

the Armed Forces. Warrant of precedence needs to be rationalized; government and the society should recognize the deep injustice done to the officers' cadre. Downgrading its status in the warrant of precedence by upgrading bureaucrats did it. Equations in the warrant should take into account the length of bureaucrat's service as was done before 1947. The reduction of the power and influence of senior officers by the governments lowers their authority and respect. It makes them appear inept to subordinates. This impacts adversely on the internal cohesion of the Armed Forces. Armed forces should delink themselves from the warrant of precedence. Else, the warrant of precedence may be amended. Armed Forces Chiefs may be made equivalent to Cabinet Secretary. Army Cdr/Vice Chief/Equivalent may be made equivalent to Principal secretary (Lt Gen- Secretary, Maj Gen- Special Secretary, Brig-Addl Secretary, Col- Joint Secretary, Lt Col- Director, Major-Joint Director, Capt Deputy Director and Lieutenant/Equivalent-Under Secretary).

- *Efforts may be made to maintain healthy Civil Military Relations.* The modern officers corps is termed a professional body and the modern officer a professional man. It is like any Advocate, Physician or an Engineer. The society, the state or even the Officer Corps is not fully aware of it. Therefore, the Officer Corps does not get the same respect from the society as other professionals. The Indian republic has depended on the Armed Forces most significantly in times of deteriorating law and order situations and national calamities. However, no study has been undertaken about deteriorating Civil Military relations. There is a need for sponsoring such a study.

- *Armed Forces need to promote Literature-Essays, Short Stories, Plays and Novels in English, Hindi and other Indian languages.*

In due course, literature about the forces should become a vibrant part of the national literary effort. This will enhance awareness levels of youth about our Armed Forces.

6.311 *The state needs to improve its political management so that internal problems are not sought to be resolved through prolonged employment of the Armed Forces.* Frequent deployment of troops in ‘Aid to Civil Authority’ gets them into unnecessary controversies. It affects attractiveness of the Armed Forces as a career. Cases of Human Rights violations by troops in insurgency-affected areas besmirch the credibility of Armed Forces. As in the case of National Defence, structures and institutionalised processes for strategic planning and operational control of Internal Security must be created.

6.312 *In order to emphasize the Morality of Military Service and to insulate the officers cadre from Moral Decadence, a Code of Ethics needs to be adopted by each service.* For greater acceptance, such a code should be developed by consensus. Some precepts for inclusion are the recognition of the primacy of self-esteem, discharge of duties, professionalism in conduct, chivalry and self-sacrifice, Service before Self and observance of austerity in personal life. The top brass should refrain from approaching Civil Courts for redressal of their grievances. Washing the dirty linen in public as done by a sacked Admiral and a Kargil Brigade Commander erodes confidence of youngsters in the Armed Forces.

6.4 Summary

This chapter dealt with analysis of data obtained from students and Armed Forces respondents. The students were asked about the degree of involvement of various individuals in the choice of their career, ranking of various professions, degree of importance of various motivators while choosing a job and measures to overcome the short fall of officers' manpower. It was found that father is most intensely involved in the choice career of their wards. Secondly, amongst various professions, IAS was the most popular. Thirdly, amongst various motivators, 'Opportunity to Earn a Lot' over helmed the minds of student respondents the most. Fourthly, compulsory Military Training was the most frequently suggested measure to attract modern day youth towards the Armed Forces. Applying the chi-square test to establish the degree of significance of relationship between ranking of Defence Services and demographic profile of student respondents, it was revealed that there is positive relationship between ranking of defence services by student respondents and their demographic profile. The defence respondents were asked three questions. The first question dealt with reasons for shortfall of officers. It was found that subjectivity in performance appraisal leading to high supersession rate was responsible for youngsters shying away from the Armed Forces. Secondly, measuring the degree of effectiveness of various measures instituted by the Armed Forces to overcome the shortfall of officers, marginal improvement in promotion prospects for the substantive ranks of Captain/Equivalent (from 6 years to 5 years), Major/Equivalent (from 11 years to 10 years) and Lt Col/Equivalent (from 21 years to 20 years) was found to be the most effective measure. And thirdly, amongst the various measures suggested for improving the attractiveness of Armed Forces, further improvement in promotion prospects at par with IAS/IPS was rated as No. 1.

Chapter 7

Implications and Suggestions for Recruitment Policies of Armed Forces

- 7.1 Context:** The recruitment policies of Indian Armed Forces were inherited from the British Indian Army, Navy and Air Force at the time of independence. It has been kept updated with the socio-economic development of Indian society, technological development of weaponry and the art of warfare. The advent of tank technology in the wake of first world war (1914-1918), enmasse employment of transport aircraft for achieving strategic mobility from one theatre of war to another necessitated change in tactical doctrines and recruitment policies. Similarly, evolution of Nuclear, Biological and Chemical warfare (NBC warfare), Missile technology, Laser Guidance, Automated Data Processing System required soldiers of the yore to upgrade their skills, attitude and behaviour to keep pace with demands of time. Improvement in Quality of work life (QWL), physical comforts and per capita income of Indian citizens in an era of globalization, liberalization and privatization of Indian economy have caused a paradigm shift in the motivational levels of youth for a career in the Defence Services. Progressive and capable Indian youth are fascinated by 'Opportunity to Earn a Lot', 'Job Security', 'Security of Self and Family', 'Prestige in Society', 'Power and Authority', 'Challenging Work' and host of other motivational factors in the choice of their career. Earlier factors like 'Opportunity to Serve the Nation', 'Adventurous Life Style', 'Glamour of Uniform', 'Honour and Gallantry Awards', 'Feeling of Togetherness Among Fellow Workers or Camaraderie' fascinated youth. They thus opted for a career in Defence Services. Now, these factors no longer fascinate youth, posing a grave challenge to Indian Defence recruiters. The

persisting shortfall of about 30% Armed Forces Officers has continued despite a number of adhoc measures instituted by the Ministry of Defence. It has affected operational effectiveness of forward units. Now, soldiering appears more stressful and less adventurous to applicants.

Till independence, both in India and UK, the officers of the Armed Forces came from an exclusive class of the society. Through legacy, Indian Army is patterned on lines of the British Army. In India, scions of noble families provided leadership for the Defence Services. The social and economic renaissance of the country has radically changed the recruitment pattern in the Indian Armed Forces. The recruitment is no longer the preserve of socially exclusive classes. The concept of martial races is also no longer that significant. Earlier, a career in the Armed Forces was more a matter of tradition. Now, this is just another means of earning a livelihood. The youngsters of today are more materialistic in their outlook. Earlier it was a taboo to discuss emoluments. Today the young officer is better informed, and has no inhibition in discussing service conditions. This new consciousness necessarily leads to comparison of Career in Armed Forces vis-a-vis other services in terms of emolument, perquisites, living conditions, promotion prospects and status in society. The attraction of capable youth into the Armed Forces is a national requirement. General Omar Bradley has rightly said, “Inferior inducement brings second rate men; second rate men bring second rate security. In war there is no prize for the runner up.”

7.2 Recruitment Policies during Pre and Post Independence Era and Upto 70s

Indians were admitted to the officers' class, only from 1923 as King Commissioned Indian Officers (KCIOs) and then from 1932 as Indian Commissioned Officers. *They were commissioned from the highest*

and affluent Indian families and those professionals who were committed to the British Indian Empire. These officers were then insulated and fully anglicized to turn out Brindians.

The ethos of these officers was to obey, to be just in exercising their own command and to be concerned about the welfare of their troops. There was an obsession with games. Officer Like Qualities included sociability, holding one's drink, attachment to regiment, camaraderie etc. It was an axiom that a mystique was created around the officer class.

The Britishers unified Army through a complicated admixture of class pride, religious symbolism, unit traditions (the fetish about uniforms, ceremonies, mess drills), ideals of duty and loyalty, liberal pays and post retirement pensions/ government land. The special features that the Indian Army inherited from the British was its non-political nature and tradition of subservience to civil.

After independence, recruitment to all ranks in the Army was thrown open to men of all religions, races, castes and regions of India. Restrictions on men from UP, Bihar, Madras and Bombay regions enlisting in the Army were removed. At the time of independence the military officer class was of the same stock as the civilian bureaucracy.

Gradually, but more speedily after 1962 and 1972 the changed socio-economic class composition of the officer cadre had become noticeable in the Defence Services. The factors responsible for the state of affairs was widening of alternative employment opportunities in IAS, IFS, in business houses, agriculture, private entrepreneurial enterprises etc leading to sons of higher classes turning to more prestigious and remunerative jobs. The Armed Forces Officer's profile dropped to lower middle class and middle class of the society.

Army Officer's career has lost attractiveness is obvious. This has led to an acute situation of under-subscription to the officer cadre. Factors responsible are not only more remunerative and prestigious alternative employment opportunities and inherent professional hazards but also some inbuilt disadvantages of military service itself such as lack of long term career opportunities and disturbed family living conditions which are inadequately compensated for. The key problem is early retirement with scant regard to retiring and retired personnel.

'Catch them Young' was the main motto of recruitment planners at the time of independence. Keeping this in view, Joint Services Wing (JSW) was established at Dehra Dun during 1949. Late Jawahar Lal Nehru, the first Prime Minister of India envisioned that capable, young, impressionable and mouldable Schoolboys of the age group 15-17 1/2 years were more receptive, motivated and suited for transformation into junior military leaders. The Joint Services Wing was later rechristened as National Defence Academy, (NDA) and shifted to Khadakvasla in Pune during 1954, on completion of its new campus at its permanent location. It was to act as Cradle of Leadership. The training at this Academy is planned on the lines of the British Military Academy at Sandhurst and US Military Academy in West Point.

The educational qualification for applicants was a mere matriculation or High School. Union Public Service Commission conducted the written test in Mathematics, English and General Knowledge. Those who qualified in the written tests were put through rigorous Services Selection Board Tests. Later, the minimum qualification required was raised to Higher Secondary (Class XI) from Matriculation during 70s

to keep pace with demands of time and new technology. The age limit was raised from 15-17^{1/2} years to 16- 18^{1/2} years. During 80s, the minimum qualification was again raised to class XII and age limit enhanced to 16^{1/2}-19 years. After three years of training at NDA, the cadets are being awarded Bachelor degree in Science and Social Science by JNU, New Delhi since 1975 onwards. Similarly, for Indian Military Academy (IMA), Dehra Dun, Flying college, Jodhpur and Naval Academy, Cochin, minimum educational qualification required was Intermediate (Class XII) at the time of independence and upto 1974. The age limit prescribed was 18-21 years. After 1974, the minimum educational qualification was raised to graduation in Science or Humanities depending upon the branch of these services opted for. The age limit was raised to 19-23 years.

Similarly, the age limit and educational standards for Short Service Commission in Defence Services were also raised. Earlier, the written test for Short Service Commission was dispensed with. Services Selection Boards screened eligible candidates for their suitability. *During 1960s 'Sainik Schools' were started to provide public school education with military bias to future military leaders.* These schools, almost one in each state, under supervision of Sainik School Society of Ministry of Defence (MoD) were to act as feeder institutions to National Defence Academy. Earlier to that, Rashtriya Indian Military College (RIMC), Dehra Dun was established in 1924 (Then called Prince of Wales Indian Military College) to act as a feeder institution to Military Academy, Sandhurst (UK) and IMA.

The recruitment policy of Indian Armed Forces has remained secular after independence. There are no reservations for any category unlike Civil Services and Paramilitary Forces recruitment.

The debacle of 1962 Indo-China War saw introduction of Emergency Commission. It was aimed to recruit youth en masse into the officer's cadre of Army with relaxed Standards. After rendering five years of service, many of these officers were discharged without proper rehabilitation. Men up to 35-40 years of age were recruited to make up the shortfall of Officers manpower. During 70s, introduction of Combined Defence Services Examination (CDSE) modified the practice of conducting separate written tests for IMA, Flying College and Naval Academy.

7.3 The Present Recruitment Policies and Motivation of Indian Youth

During 70s educational standards and age limit of recruitment into the Officers cadre was raised. This was done to achieve uniformity with other Civil Services and to meet the demands of modernization of weaponry and technological development in the country. *The secular ethos of recruitment has remained unchanged despite political pressure on several occasions.*

Noting the shortfall, to the tune of 30%, in the Officers Cadre, Armed Forces resorted to a change in recruitment policies. Recruitment of Unmarried/Divorced and issueless women was started during 1992 on trial basis, for a short term of five years initially. Later on, the term of selected girls was extended to ten years on voluntary basis. These lady officers were employed on softer jobs like Intelligence, Education, Engineers and Telecommunications and as Law Officers. But their present number is minuscule as compared to their male counterparts.

Another change in the Recruitment Policy is engagement of top advertising agency 'Hindustan Thomson Associates (HTA) for both

print and electronic media blitz. This is to attract capable youngsters. The campaign 'Do you have it in you?' has had lack-luster effects on the motivational levels of youth, being targeted at urban youth i.e. Engineers, MBAs etc.

Other measures instituted by the Armed Forces to overcome shortfall of officers like re-employing retired officers, marginal improvement in promotion prospects of officers, introduction of Special Commission Officers (SCOs) to encourage Personnel Below Officer Ranks (PBOR) for greater responsibilities, stipend of Rs 8000/- for trainees at pre-commission Academies, Embodiment of Territorial Army Officers for longer duration, increasing intake of Short Service Commissioned Officers (SSCOs), lowering standards of recruitment at Services Selection Boards have been found to be between 'Least Effective' and 'Somewhat Effective' by the investigator. Being adhoc in nature, these are mere knee-jerk reactions by the Government of India and do not address the actual problem.

The student respondents accorded the highest priority to motivators like 'Opportunity to Earn a Lot', 'Power and Authority,' 'Prestige in Society', 'Job Close to Home Town' and Job in a Large Metro'. The motivators which made Armed Forces as an attractive career option in days of yore like 'Opportunity to Serve the Nation', 'Adventurous Life Style', 'Feeling of Togetherness among Fellow Workers' and 'Glamour of Uniform' were ranked lower in the order of preference by the youth respondents. This indicates a paradigm shift in the perception of youth. Possibly, the materialistic and consumerist culture of the globalized era, are responsible for the present state of affairs.

The reasons for shortfall of officers in the Armed Forces identified by the Defence Respondents help us understand the key

deterrents for modern day youth while opting for a career in Defence Services. These factors demotivate them. *Professional hazards like greater vulnerability to martyrdom in times of war and on Line-of-Control (LOC)/International Border (IB)/Counter Insurgency (CI) Operations, poor promotion prospects, subjectivity in performance appraisal, inadequate Compensation vis-à-vis risks involved, declining status of Armed Forces Officers in the warrant of precedence, prolonged separation from families, poor growth prospects, autocratic style of functioning of military leaders are important demotivators, spelt out by the defence respondents.*

7.4 General Implications

Some of the obvious repercussions of changing motivation of youth, have been enumerated below:

- 7.41. The importance of leadership in the army hardly needs any elaboration. *It is also needless to say that the quality of performance by men shall depend upon the quality of leadership provided to them. That is why it is necessary that every officer must perform tasks that demand organizational and manipulative skills and tasks that demand heroic or personnel leadership. To perform leadership roles, an officer must be 'the right type' as the British call him. He must possess moral character, leadership ability and personal courage. With the current changes in the recruitment ideology and thereby lowering the standards of selection, there is a danger that leadership quality in the service may get adversely affected. We may have more and more service personnel who are not 'the right type' and hence the professional efficiency would stand impaired.*

7.42 The present trends, as observed in the economy, are making it difficult to get enough number of qualified people willing to join the Services. Most of the available hands in the market are opting for the Corporate Sector. It has been observed that many technical hands, particularly engineers, were not even interested in the military as a career. But being unable to find jobs in the civil sector they turned to military career. For them military career is a good service, though arduous one, but definitely not a faith. This trend can have an adverse effect as far as quality of technical expertise is concerned because :-

7.421 *In the absence of non-availability of suitable technical hands, the new entrants may not be professionally sound, if taken in by lowering the standard; and*

7.422 *The replacements may have to be made by promoting from Personnel Below Officers Ranks (PBOR) who have worked as foremen or mechanics etc. These replacements certainly would be inferior to the appropriately qualified hands. All these hurdles definitely may lead to lowering the technical standards in the services. With modernization and increasing sophistication of war technology, the second grade technical experts will definitely affect the professional efficiency of the soldier, with far reaching consequences.*

7.42.1.1 *There is a danger that the rejects from the other professions may dominate the composition of the army. Those who would fail to find an avenue outside and are the left over or the 'inferior type' in the strict sense. Hence, the army profession would be left to be manned by mediocre only, or by those who would be attempting to rise higher in the socio-economic ladder. Thus, a new and derogatory image of the*

military profession may emerge, whereby it shall be considered a profession, which is ready to sell cheaply. During the tenure of former Chief of Army Staff (COAS), General V P S Malik, Services Selection Centres in the country were directed to compulsorily recruit a minimum number of candidates from each batch, despite their inferior performance in the tests. This desperate step was taken to overcome shortfall of Defence Officers. The media reported it on a number of occasions. This will demotivate the handful of dedicated, idealist or elite, who would be willing to join the services for the love of it.

7.43 An allied phenomenon observed, as an offshoot of the above situation, is the *heavy drain on the trained manpower that is being caused as a result of increasing number of officers seeking premature retirement. A vast majority of them wish to quit the service, after completing minimum pensionable service, and seek an opportunity in the civil sector and start a second career at the earliest possible. At that matured age, when they have already attained some status, financial standing and experience, they do not find the Armed Forces financially lucrative, satisfying and challenging enough to induce them to continue further. Thus, on one hand the nation loses skilled manpower, having been trained at a very high cost, and on the other, it is forced to induct newer hands, which are inferior to their predecessors as highlighted earlier. These officers, quitting at a premature stage, also tend to serve as a reference group for the younger generation not to opt for the Services.*

7.44 From the foregoing, it can be said that the *changes brought upon in the recruitment ideology for the Indian Defence soon after independence, with the intention of broadening the base for bringing about equality and national interaction have/had*

their obvious derogatory effect on the professional standards of the Armed Forces. The situation got further accentuated as a result of the need for sudden expansion consequent to wars with China and Pakistan, and the changing socio-economic level of the country, which has made civil sector more lucrative. *There is an obvious necessity to initiate deliberate steps to improve the terms and conditions of the Defence Services to ensure induction of the 'right type' and their continued retention.* Hence the impact of changes in recruitment ideology can aptly be summarized in the following words:

“There may not be shortage of volunteers for the Defence Services because of the staggering unemployment in our country. But in terms of quality, however, there is no doubt that the Defence Services are lagging behind in drawing the more promising boys from our Schools, Colleges and Universities. ” And “if we fail to ensure that our Armed Forces get the pick of nation’s youth, we may have to pay serious penalties for this lapse.”

This phenomenon is equally applicable to and is being experienced by all newer nations, who are traversing a similar path of industrialization and economic development. Thus, there is an obvious necessity to take effective steps to rectify the situation.

7.5 Implications for the Recruitment Policies of the Armed Forces Based on Research Findings

7.51 *This study indicates that mother is most highly involved in the choice of career of student respondents. This means that media campaign should target parents, especially mother, to increase their awareness level about the Armed Forces. This will enable parents to motivate their children for exercising career option for Defence Services. Besides, the role of other individuals likes Brother/Sister, Friends, Grand parents and relatives in shaping the choice for a career needs to be underlined. Suitable advertisements needs to be planned for both print and electronic media targeting all possible individuals especially parents of youth, urging/appealing them to motivate their children to opt for the Armed Forces by increasing their Defence Services awareness levels.*

7.52 Defence Services have received a rather low ranking among student respondents. *There is a need of enhancing the rating of Defence Services as a career option. This may be done by incorporating the higher-ranking motivators of modern day youth in the recruitment policy of Defence Services.* There is need to benchmark the service conditions of Armed Forces vis-à-vis other Services. This will enable recruitment planners to know exact ground realities and take timely remedial measures to attract capable youth into the folds of Defence Services.

7.53 The ranking of various motivational factors while choosing a career by student respondents indicate that *'power and pelf' is the single most dominant factor.* The motivators for youth for joining the Defence Services like *'Adventurous Life', 'Opportunity to Serve the Nation', 'Camaraderie' and 'Glamour of Uniform'* are less appealing as compared to *'Opportunity to Earn a Lot', 'Power and Prestige in Society', 'Job close to Home and in a Large Metro'.* *This indicates that*

service conditions in the Armed Forces in terms of families' accommodation for personnel, pay and allowances and need for higher status to Service Officers in the warrant of precedence require review by recruitment planners.

- 7.54 *The social environment of the country needs to be factored in the recruitment policy to attract competitive youth into the Armed Forces. Emerging single child norm is also responsible for deterring capable volunteers from venturing into the Defence Services. Such parents with only son/daughter need to be targeted by the media, quoting example of legendary 'Panna the Governess/Nurse from Rajasathan who sacrificed her only son in order to save the life of future king of Mewar, toddler Rana Sanga, the young heir to the throne. Since motivators are subject to change with time and circumstances especially in the globalized, privatized and liberalized Indian economy, Indian recruitment planners can ill afford to ignore these vital aspects.*
- 7.55 *The reasons of shortfall of officers given out at question No. 1 of Defence Respondents indicate shortcomings of Indian Defence Recruitment Policies. These demotivators, like inequitable pay and allowances, poor promotion prospects, prolonged separation from families due to inadequate married accommodation, subjectivity in performance appraisal, autocratic leadership and declining status in warrant of precedence et al which deter youth from joining the Defence Services, need to be removed through constant improvement in service conditions. These conditions available to officers of Defence Services of developed countries may be studied for their applicability in Indian scenario. The necessary changes may be incorporated in our Recruitment Policies for greater acceptance of Armed Forces as a career option.*

- 7.56 *'Somewhat Effectiveness' of various adhoc recruitment policies like recruitment of short service commissioned lady officers, re-employing retired Officers, introduction of special commission officers (SCO), marginal improvement in promotion prospects of service officers indicate the need for formulating concrete recruitment policies (Refer Analysis of question No 2 of Questionnaire for Defence Personnel in Chapter 6). The present media campaign; 'Do you have it in you?' needs to be made more appealing to wider cross-section of Indian youth including rural youth. The main focus on urban youth requires modification. The continuous and regular survey on the effectiveness of changes in Defence Services Recruitment Policies needs to be undertaken. This will ensure greater effectiveness of recruitment policy makers through correct identification of shortcomings and timely remedial measures.*
- 7.57 *The measures suggested by Defence Respondents as answer to open-ended question No. 3 may be categorized as measures for implementation within the Armed Forces and outside the Armed Forces. The measures for execution within the Services include substantial improvement in promotion prospects at par with Civil Services, Objectivity in Performance Appraisal, development of Family Accommodation in Forward Areas, improvement in Pay and Allowances in consonance with hardships and risks of Services. These imply poor satisfaction levels of the Defence Services Officers. It calls for constitution of a separate Pay Commission for the Armed Forces personnel keeping in view their peculiar service conditions vis-à-vis civilian counterparts. The measures suggested for implementation outside Armed Forces include conscription (as done in USA), effective Media Campaign, facilitating visits of*

youngsters to Defence Establishments for enhancing their awareness, compulsory NCC Training, rationalizing the Warrant of Precedence of Armed Forces officers vis-à-vis Civilian Counterparts, introducing Quiz on Indian Armed Forces, establishment of a Defence University and Defence Services Bank for personnel.

7.6 Suggestions

Based on findings the various suggestions given out by students and Defence respondents for improving the attractiveness of the Defence Services are tabulated below: -

Table No. 7.6
Suggestions for Improving
Attractiveness of the Defence Services

Ser No.	Specific Findings	Proposed Measures
1.	<i>Father is the most highly involved in the choice of career of student respondents.</i>	<i>Advertising Campaign may exhort fathers to motivate their siblings to opt for the Armed Forces.</i>
2.	<i>Defence Services is ranked 7th in the order of preference for a career.</i>	<i>Pay, Allowances, and Promotion Prospects need to be brought at par with IAS/IPS, which are ranked as No.1 profession in popularity rating.</i>
3.	<i>'Opportunity to Earn a Lot' is the single most conspicuous motivator for majority student respondents.</i>	<i>The Compensation offered to the Armed Forces personnel should be made remunerative enough keeping in view hardships and hazards of the profession. It should be on the lines of foreign Armies. However, more emphasis should be on intrinsic motivators than materialistic comforts.</i>
4.	<i>Provide Compulsory Military Training in all schools and colleges.</i>	<i>Make NCC compulsory in all schools and colleges as it was done after 1962 Indo-China war after advertising the positive aspects through media campaign.</i>
5.	<i>Subjectivity in Performance Appraisal.</i>	<i>Introduce 360^o Appraisal.</i>

Ser No.	Specific Findings	Proposed Measures
6.	<i>Pyramidal Hierarchy and Poor Promotion Prospects.</i>	<i>Restructure Armed Forces to create move vacancies for better promotion prospects of personnel.</i>
7.	<i>Unrealistic Pay and Allowances.</i>	<i>Constitute Separate Pay Commission for the Armed Forces. It should take into account the harsh and risky working conditions while formulating the package.</i>
8.	<i>Early Retirement Age.</i>	<i>Lateral induction of Armed Forces officers into Civil Services to ensure job security upto 60 years of age.</i>
9.	<i>Risks of being Disabled and Martyred in Battle/Counter Insurgency Operations.</i>	<i>Ensure adequate Insurance Cover, Ex-gratia Payment and Rehabilitation of next-of-kin of the deceased.</i>
10.	<i>Frequent Separation of Soldiers from their Families.</i>	<i>Construct 100% Family Accommodation in all Cantonments and Forward Areas.</i>
11.	<i>Autocratic Style of Leadership in the Armed Forces.</i>	<i>Encourage participative Style of Leadership by instituting suitable Rewards by practitioners of the new style.</i>
12.	<i>Frequent Unscheduled Move of Personnel for Internal Security/ Counter Insurgency tasks.</i>	<i>Deployment of troops on Internal Security Duties and Counter Insurgency tasks should be minimised. It should be assigned to Central Police organisations (CPOs) and Paramilitary Forces (PMFs)</i>
13.	<i>Poor Growth and Development of Children of Defence Personnel.</i>	<i>Cohabitation of Defence personnel with their families in forward areas and reservation of seats in educational institutions for children will overcome this malaise.</i>
14.	<i>Scandalous Defence Deals.</i>	<i>Emphasise Code of Ethics for officers of Armed Forces. Offenders should be dealt with sternly under respective Army, Navy and Air Force Acts.</i>

7.7 Summary of Motivational factors of Indian Youth - based Implications for Recruitment Policies of Armed Forces

The changes introduced in the recruitment ideology for the Indian Armed Forces after Independence had deleterious effect upon the professional standards and operational effectiveness. However, these changes were necessary for meeting goals of equality, national integration and secularism enshrined in the Indian Constitution. An effective recruitment policy should stimulate capable, committed and motivated youth for enrolment into the officer cadre of the Defence Forces. 'Opportunity to Earn a lot' and 'Power and Prestige in society' have replaced erstwhile aspirations of youth like 'Opportunity to Serve the Nation', 'Glamour of Uniform' and 'Adventurous Life Style'. This has nurtured consumerist, materialistic and individualistic attitudes in today's youth and thereby causing shortfall of officers in Defence Services. There may not be shortage of volunteers for the Defence Services because of rampant unemployment in the country. But the quality of optees for Defence Service Officers cadre leaves much to be desired. Crème de la Crème from Indian Schools and Colleges prefer softer jobs in software MNCs, Civil Services and other independent professions. The shift in motivational factors of Indian youth has caused a shortfall of 30% in its officer's cadre. While civil services rank as No. 1 profession in the order of preference in the study, the student respondents have rated the Defence Services as No. 8. The main reasons for shortfall of officers have been cited as poor promotion prospects, prolonged separation from families, professional hazards, subjective performance appraisal and inadequate compensation vis-à-vis hardships and risks involved. The adhoc recruitment policies like commissioning of ladies for short service of five years, re-employing retired officers, encouraging Personnel Below Officer Rank (PBOR) to take up special commission, marginal

improvement in promotion prospects and unimaginative media campaign et al have been found to be only 'somewhat effective'. The measures suggested by student and defence respondents to improve effectiveness of the Armed Forces as a career option need deliberation by both Defence Recruitment Policy Makers and the Government of India. A constant and continuous survey of the motivators of youth is the need of the hour. This will ensure evolution of concrete recruitment policies based on international and Indian environment conditions.

Chapter 8

Chapter 8

Highlights, Suggestions
and Future Directions

8.1 Major Highlights including Suggestions

- 8.11 In the choice of career by youth, various individuals e.g. mother, father, sister, brother, teacher, friends, grandparents etc play their role. The degree of involvement of these individuals varies in school, undergraduate and post-graduate students. *In this study, mother involved the most in the process.* Other individuals involved in the choice of career in decreasing order of importance are father, friends, relatives, teachers, sister/brother, grand parents and others. Other factors include self-motivation, girl friends, and celebrities.
- 8.12 *Civil Services has emerged as the most sought after career among modern day youth* followed by private sector, self employment, independent professionals, teaching, career in creative/performing Arts, Computer and IT professional, Defence Services, Public Sector and others. Other professions include Consultancy and Cinema.
- 8.13 *The Indian Armed Forces find lower precedence amongst the youth in the choice for a career. Probably, the risks and hardships of the Defence Services deter the prospective candidates.* Amongst the Indian Armed Forces, the Indian Army is the least popular. Indian Air Force is the most

coveted. Indian Navy follows it.

- 8.14 *There is significant relationship between ranking of Defence Services by student respondents and their demographic profile. This relationship is most significant between ranking of Defence services by student respondents and their No. of Brothers. .*
- 8.15 *The Indian youth do not apply for the Armed Forces as a career as they do for other professions. Bulk of Armed Forces aspirants is average academically and from middle to lower income group.*
- 8.16 **‘Opportunity to Earn a Lot’ is the most significant consideration in the choice for a career for all student respondents. ‘Glamour of uniform’ and ‘Adventurous life style’ enthruses very few youth. Emerging materialistic out-look and consumerist culture, possibly, are responsible for capable youth shying away from recruitment into the Armed Forces. Team-spirited Spartan youth with austere life style fit in well into Armed Forces work culture.**
- 8.17 *The main reasons for shortfall of Officers, as perceived by defence respondents are subjective performance appraisal, poor promotion prospects, unrealistic pay and allowances, professional hazards, frequent moves, separation from families and availability of other lucrative avenues.*
- 8.18 *The various adhoc measures undertaken by the Indian Armed Forces to overcome shortfall e.g. marginal improvement in time period for substantive promotion of Captain, Major and Lt*

Col/Equivalent rank, increasing intake of NCC 'C' certificate qualified Officers, increase of intake of short service Officers, Lady Officer's recruitment, re-employment of retired Officers, media campaign, dilution of selection standards etc. have had lack-luster effect on making up the officer's manpower deficiency.

8.19 To attract talented youth towards the Armed Forces, *improvement in promotional prospects to bring it at par with civil services, reservation of seats for children of defence personnel in Schools and Colleges, assured employment up to 60 years of age, realistic pay scales, increase in scales of family accommodation for soldiers, sensitization of civil administration towards problems of soldiers, compulsory military training, conscription, effective media campaign, appropriate counseling in schools/colleges are important.*

8.20 Paradigm shift in the motivational factors with bias towards materialism and consumerism and persisting shortfall of 30% Officers call for formulation of *realistic recruitment policies*. Risks and hardships of the profession of arms need to be factored into the compensation package to attract talented youth into the officers' cadre. X –Factor pay or Military Service Pay may be included in the compensation on the lines of foreign armies.

8.2 Future Directions

Based on the experience gained during the period of the study and the results of the study conducted, the following recommendations are made:

- 8.21 Further, longitudinal study at national level should be taken up for accurate generalizations.
- 8.22 For better representative sample, the larger number of students and defence respondents from some more areas of the country should be included.
- 8.23 **An in-house debate should be held in the Armed Forces for improvement of Service Conditions of its personnel.** Such a debate should be held under aegis of a specially constituted committee comprising nominated personnel of varying rank structure, seniority and from all Arms and Services. The views and expectations of personnel should be projected to the Government of India in a convincing manner. The follow up action should be continued till the implementation of recommendations of such a committee.
- 8.24 The aspirations of modern day youth in the form of suggested measures outlined by student respondents need to be considered and rationalized for incorporation into service conditions for greater attractiveness of the Defence Services as a career option. *It may neither be feasible nor desirable to meet all the motivators of modern day youth.* However, **regular motivational surveys and in house debate** on results of surveys by recruitment planners of the Defence Services will definitely keep the recruitment policy in tune with time.
- 8.25 *Concerted efforts should be made by the Government of India to improve the attractiveness of the Armed Forces service conditions*

by enhancing the motivating factors and alleviating the hardships obtained through a research study. Quality of work life of Armed Forces needs to be made compatible with the Armed Forces of the world. Pay and allowances and service conditions should commensurate with hardships and professional hazards. For high degree of security and insurance of lives of countrymen, higher premium in the form of better pay and allowances of soldiers have to be paid. Recruitment policies need to be brought up-to-date by analyzing internal and external socio-economic environment of the country. Armed Forces need to recruit the bright youngsters since there are no runners –up during a war.

8.26 *Well- planned media campaign* should be launched at national level to enthuse able-bodied young persons into the fold of Armed Forces.

8.27 A separate Pay Commission should be constituted for the Armed Forces, which should consider peculiar service conditions of the services based on the results of a survey. The pay and allowances should be made compatible with the harsh working conditions evaluated by a periodical Services Survey Board. The results of such research should be made available to the pay commission. A comparison be made about the service conditions of the Armed Forces and other services for proper justification of enhancement of pay and allowances and thereby attracting the bright youngsters into the Armed Forces and overcoming the present shortfall of 13000 officers through a more objective job evaluation.

Bibliography

Albuquerque, Usha (2001) **Career Guide – Humanities**, MC Graw Hills Co, Mumbai.

Awasthy, Indra (1986) **‘Proceedings of Seminar on Military and Society’** held under the chairmanship of Lt Gen AM Vohra at Vigyan Bhawan on 20-21 Oct 1986, organised by USI and Editors Guild of India.

Balaram, Lt Gen K, PVSM (Retd) (1997) **Problems of the officer cadre of the Army**, USI Journal April-June pp 164-177

Baweja, Harinder (2002) **Giving The Defence Services a Younger Look**, India Today, 30 July.

Bhatia, RL (1996), **Career Planning for Success**, Wheeler Publications, New Delhi.

Chaffe, GH and Edmonds, PJ (1963), **Careers Encyclopedia, a work of reference upon some 250 occupations for Teachers, Parents, School Leavers, Undergraduates and Employment Officials**, Third Edition , Macmillan and Cleaver Ltd, London.

Chibber, Lt Gen (Dr.) ML, PVSM, AVSM Ph D (1986) **‘Military as a career’** published by USI.

Grant Brig NB, AVSM (Retd) (1996) **In Izzat of the Man Behind the Gun**, USI, New Delhi, PP 232-235.

Green, RT and White, PD (1976), **‘Methodological Considerations in Cross National Consumer Research’** Journal of International Business Studies, Volume 7, p-17.

Janowitz Morris (1964) **The Professional Soldier**, The Free Press of Glencoe **Currier** - Macmillan Ltd, London, First Edition, pp 104-124.

Johnson, Miriam and Wegmann, Robert (1982) **Job Search Training for youth**, Olympus Publication Company, Salt Lake City (Utah).

Keller Franklin J (1948) **Vocational Guidance Throughout The World- a comparative**

Survey, DC Heath and Company, Boston.

Bibliography

Kumar, Dinesh (1998) **"Army is short of 13000 officers"**. Times of India 14th July pp 1

Mahajan, Lt Gen RN, PVSM, VSM (Retd.) (1999), **How to Make a Career in the Armed Forces Attractive**. A survey project report published in United Services Institution of India (USI) journal October-December pp 514-25.

Mandle, Col YA (1979) **Motivation**. USI, Journal, June pp 62-74.

Nair, Flt Lt RM (1982) **How can the Best Educated and Most Physically fit be attracted to Services?** USI July-Sept pp 217-226.

Retting, Jack L (1974) **Career: Exploration and Decision**, Prentice Hall, Inc Washington

Sinha, Lt Gen SK, PVSM (Retd) (1996) **Indian Army Before and After Independence**, USI Journal, New Delhi, Oct-Dec pp 447-462.

Sinha, Major General (Later Lt Gen and presently Governor of J&K) SK, PVSM

(1976) **Motivation and the soldier**, College of Defence Management Journal, June 1976, pp 1-4.

Tan don Kum Kum (1998) **Career options after 10plus 2 and beyond**, U B S Publishers Ltd, New Delhi.

Suggested Readings

Suggested Readings

A publication of college of Defence Management, Secunderabad (1998), **Motivation**, Govt of India, press.

Abott Edith (1942) **Social Welfare and Professional Education**, University of Chicago.

Aggarwal. KC (1982) **Educational Vocational Guidance and Counseling (With Special Reference to The New Pattern of Education i.e. 10+2+3)** Vikas Publishing House, New Delhi.

Armed Forces **Encyclopedia in Picture** (1963), Army Education Stores, Ambala Cantt.

Arya, Dr Anita Mahal (2001) **Women in Uniform: Gender Dialectics in the Indian Armed Forces** (Part I & II), USI Journal, New Delhi Jan-Mar, pp 270-280.

Atkingson, John W and Joel O (1974) **Personality, Motivation and Achievement**, Hemisphere Pub Co. Washington.

Atkinson, John W (1976) **Human Motivation and Emotion**, John Wiley & Sons, New York.

Atkinson, John W and Birch, David (1970) **The Dynamics of Action**, John Wiley and Sons, Inc, 1970.

Baker, John C (1936) **On going into Business**, Mc Graw Hill, New York.

Balaram, Lt Gen K, PVSM (Retd) (1999), **A Department for Welfare of Ex-Servicemen: A Proposal**, USI Journal, New Delhi, Jan-Mar, pp 101-118.

Banerjee, Mritunjoy (1984) **Organizational Behavior**, Allied Publishers Pvt. Ltd, Bombay.

Barki, BG and Mukhopadhyay, B (1991), **Guidance and Counseling: A Manual**, Sterling Publishers Pvt Ltd, New Delhi.

Barnawal, Sukhdeo C (2000), **Military Year Book**, Guide Publication, New Delhi.

Batra Shakti and Bright, PS (1968), **Career Directory of Civil Services**, sixth Edition Bright Careers Institute Delhi.

Batra, Col MN (1952), **Recruitment in the Armed Forces of India**, USI Journal, January- March, pp 164-175.

Suggested Readings

Baweja, Harinder (2000) **Fighting Unfit**, *India Today*, 28 Aug, pp 47.

Beakly, George C and Leach, HW (1967) **Career in Engineering and Technology**, The Macmillan Co, London.

Beck, Robert C (1983) **'Motivation-Theories and principles'** Prentice Hall Inc, Englewood cliffs, New Jersey, Second Edition.

Bhagat, Panda (1999) **Brand Equity of War**, *TOI*, 01 July, pp 7 Coln 1-3

Bhandari, Prakash (1999) **Bravery is Their Hallmark**, *TOI*, New Delhi, 09 July, pp-7 Coln 1-4.

Bhatia, HS (1980), **Military Dictionary and Encyclopedia**, (of Army, Navy, Air Force, Paramilitary and Allied Terminology), Deep Publications, New Delhi.

Bhatia, Prem (1985), **The Military and the Media**, published by USI, Oct-Dec, pp1106-1115.

Bhattacharya, Vivek Ranjan (1987), **Career Management :The New Challenge**, Enkay Publishers Pvt Ltd, New Delhi.

Bindra, Dalbir and Stewart, Jane (1968) **Motivation, Selected Readings**, Penguin Books, Reprint 1968.

Birney, RC and Teevan, RC Eds (1965) **Measuring Human Motivation**, Harcourt Brace and World Inc, New York.

Bolles, Robert C (1969) **Theory of Motivation**, Harper and Row, New York Evanston and London and John weather hill, Inc, Tokyo, Second Print.

Booklet (1999) on **'Rights and Privileges of Army soldiers'** published by Additional Directorate General (Discipline and Vigilance), AG Branch, Army HQ and *TOI* 15 June pp 7.

Bootzing, Richard R, Bower and Gordon IH (1986) **Psychology Today- An Introduction**, Chapter 12- Motivation, Mc Graw- Hill Publishing Co. New York, Sixth, Edition.

Brown, R Michael and Cook Paul P (1986) **Introduction to Psychology**, Chapter 10- Motivation, Emotion and Behavior, CBS Japan Ltd New York, pp 250-275.

Bruno, Frank J (1980) **Behavior and Life- An introduction to Psychology**, Chapter - V on Motivation, John Wiley & Sons, New York, pp 151-194.

Buck, Ross (1976) **Human Motivation and Emotion**, John W & Sons, New York.

Career Information Series No 15 **Art for a living**, The Macmillan Co, London.

Suggested Readings

Career Information Series No 8, **Be your own Employer**, The Macmillan Co, London.

Career Information Service No 17 **Mathematics for a career** Central Institute for Research and Training in Employment Service.

Careers Digest Varma Brothers, New Delhi, annual Number 1999, 2000 and 2001.

Carr-Saunders, AM (1933) **The Professions**, The Oxford University Press.

Chaffe, GH and Edmonds PJ **Occupations-Dictionaries and Encyclopedia**, Mac Millan and Cleaver Ltd, London.

Chandra, Parul (1999) **No Succour for Colonel's widow**, TOI, New Delhi, 15 Jul pp-5 coln 1-3.

Chaturvedi, MS (1978), **History of the Indian Air Force**, Vikas Publishers House Ltd, New Delhi.

Choudhary, Sreerupa Mitra (1999) **Widowed by war, married to Misery**. TOI 19 Aug pp 1.

Chuter, David (1996) **What are the Armies For?** Brassy'a Defence Year Book, pp 415-424.

Coe, George A (1929) **The Motives of Men**, Scribner, New York.

Cofer, CN and Appley, MH (1964), **Motivation: Theory and Research**, John Wiley and Sons, Inc New York.

Cohen, Stephen P (1971), **The Indian Army: Its Contribution to the Development of a Nation**, University of California Press, Bombay.

Comptroller and Auditor General of India Report (1998), **Neglect causes Army 827 crores loss**, Hindustan Times 25th June pp7.

Couhat, Jean Labayle Ed (1978), **Combat Fleets of the World 1978/79**, Their Ships, Aircraft and Armament, Naval Institute Press, Maryland.

D'Souza, Maj Gen E, PVSM (Retd) (1998), **The Soldier and The Environment**, USI Journal, New Delhi, Oct-Dec, pp 660-667.

Daftuar, Chittranjan N (1982) **Job Attitudes in Indian Management: A study in Need Deficiencies and Need Importance**, concept Publishing Co, New Delhi.

Dalton, Gene W and Lawrence, Paul R. Ed (1971) **Motivation and Control in Organization**, Richard D Irwin and Dorsey Press, Illinois.

Suggested Readings

DE Charms, Richard (1976), **Enhancing Motivation, Change in The Classroom**, Irvington Publishers, New York.

Dea, Edward L (1976) **Intrinsic Motivation**, Plenum Press, New York.

Decline in Status and Image (1999), **Defence Management Journal**, Secunderabad, Apr-Sep, pp 75-85.

Denny, Richard (1971), **Motivate to win: Tested Techniques For Greater Achievement**, Mc Graw-Hill Book, Co, New York.

Dichter, Ernest (1971), **Motivating Human Behavior**, Mc Graw-Hill Book Co. New York.

Dickinson, Anthony and Boakes, Robert A Eds (1979) **Mechanics of Learning and Motivation: A Memorial Volume** to Jerzy Konorski, John Wiley and Sons, New York.

Dogra, Lt Sunil (2000) **The NCC Or Compulsory National Service for Two Years**, USI Journal, New Delhi, Oct-Dec, pp 630-638 Edition. Pp 275-298.

Engle/Snellgrove (1984) **Psychology- Its Principles and Applications**, Chapter 13, **Motivation and Emotion** Harcourt Brace Jovanovich Publishers, New York, 8th Edition, pp 266-286.

Ficarottal, J Carl (1997) **Are Military Professionals Bound By a Higher Moral Standard?** Armed Forces Society, Vol 24, No 1, pp 59-76.

Gallerman, Saul W (1988), **Management By Motivation**, John Wiley, 2nd Edition, New York.

Gellerman, Saul W (1983) **Motivation and Productivity**, Van No strand Reinhold Co. New York.

Ghose, Jayanti (1999) **Women in the Armed Forces**. TOI 6 Sept pp 1.

Ghose, Jayanti, (1999) **IAF Touches ground**. Times of India November coln 4-6 pp 7.

Glickman, Stephen E and Milner Peter M, Eds (1969), **The Neurological Basis of Motivation an Enduring Problem in Psychology**, Van Nostrand Reinhold Co. New York.

Goswami, BL (1969), **Privileges of Military Personnel (and Of the Naval and Air Force) in Courts of Law**, NM Tripathi Pvt Ltd, Bombay.

Grant, Brig NB (1997) **The Image of the Armed Forces**, Indian Defence Review, Oct-Dec, Vol 12, No 4, pp 49-53.

Suggested Readings

Grant, Brig NB (1999) **Why Be a Soldier? Letter to the Editor Column**, NT, New Delhi, 01 September. Pp 6.

Grewal, Brig RS (2001), **Human Factors Engineering in the Army**, USI Journal, New Delhi, Jan-Mar, pp 108-111.

Gupta Shishir (2000) **Army Selection Norms Taking a Dive**, HT, New Delhi, 08 Sep, pp-1, Coln 1-3.

Gupta Shishir (2000) **Fill up Training Academies or You Will Go, Army Recruitment Warned**, HT, New Delhi, 09 Sep, pp-1, Coln 1-4.

Gupta, Brig PK, AVSM (Retd) (1988), **Better Management of Army Officers** USI Journal, Oct-Dec, pp 383.

Gupta, Sishir (1999) **'George Ignored Air Chief's Advice on Contract'** Hindustan Times 4th March pp 3.

Haber, Ralph Norman Ed (1966), **Current Research in Motivation**, Holt, Rinehart and Winston Inc, New York.

Handa, Capt Akshay (1992) **Military Leadership in Today's Changing Social, Economic and Technological Environment**, USI Journal, New Delhi, Jul-Sep, PP 321-337.

Heap, Brian W (1968) **A Guide to Careers and Courses**, Word Lock Educational Ltd, London.

Heckansen, Jack E (1962), **The Psychological Bases of Motivation**, Harles E Marriel Books, Inc, New York.

Heekhausen, Heinz and Other, (1985), **Achievement Motivation in Perspective**, Academic Press Inc, New York.

Herzerg, Frederick and Others (1965), **The Motivation to Work**, John Wiley, 2nd Edition, New York.

Hindustan Times dated 9th Sept. 1999 report, **Army, Para Military Forces Split over J&K Deployment** pp 3.

Hoppock, Robert (1963), **Occupational Information**, Mc Graw Hill Book Co, New York.

HRD in the Armed Forces (1999), **Defence Management**, Vol 25, No 2, Nov-Apr 1999.

HT Correspondent (1999) **Govt Indifferent to Soldiers Needs**, Lament War Veterans; HT, New Delhi 12 July, pp-11, Coln 1-3.

Suggested Readings

HT Correspondent (2000), **Shortage of Officers Taking its Toll**, Army, HT, New Delhi, 12 Sep, pp-13, Coln 1-3.

HT Report (2000) **Major Acharya was Inspired By Gita**, HT New Delhi, 25 July, pp-3, Coln 1-4.

Human Performance Enhancement in the Armed Forces, Air Power, Summer 1997, Vol XI, No 2, pp 25-37.

Huntington Samuel P Ed (1962), **Changing Pattern of Military Politics**, The Press of Glencoe, New Delhi.

Huntington, Samuel P (1957), **The Soldiers and The State Theory and Politics of Civil Military Relations**, The Balkan Press of Harvard University, Cambridge.

Hythe, CC Wakefield, Baron (1986) **On leaving school and The choice of a Career**, Addison-Wesley Publishing Co, Amsterdam.

India- Central Institute for Research and Training in Employment Service (2001), **Be your own Employer**, Penguin Publications, New Delhi.

India- Ministry of Defence (1998) **Armed Forces Personnel and Civilians in Defence Establishment: Book on Service Conditions**.

India, UPSC (2001), **Pamphlet for CDSE Containing Rules and Question Papers**, GOI Press, New Delhi.

India-Ministry of Defence (2001) **A career in the Armed Forces**, Govt of India Press, Faridabad.

India-UPSC (2001), **Pamphlet for NDA Examination, Containing Rules and Question Papers**, GOI Press, New Delhi.

Indra Gandhi Feared I Would Stage Coup: Manekshaw, The HT, New Delhi, 02 August 1999, pp 11, Coln 2-5.

Jang, John Wiley (1978), **Understanding Human Motivation, A cognitive Approach**, Mac Mellon Publishing Co, New York.

Janowitz Morris (1964), **The Military in the Political Development of New Nations, an Essay in Comparative Analysis**, University of Chicago Press, Chicago.

Joshi Hargovind (2002) **Defence Administration in India**, Akansha Publishing House, New Delhi.

Kahlon, Capt HS (1996) **The Impact of Social, Political and Economic Condition**, New Delhi, Oct-Dec, pp 485-494.

Kant, Aditya (1999). **A New Life Proposes to Kargil war Widows**. TOI 18 Aug pp 4.

Suggested Readings

Kanwal Ramlal (1990), **Motivation Towards Adult Education**, Criterion Pubs New Delhi.

Kapoor, Maj Gen SBL (Retd)(2002), **Human Resource management in the Army**, Knowledge World Publishers, New Delhi.

Karim, Maj Gen Afsir (1995) Editor, **The Indian Armed Forces- A Basic Guide**, Lancer Publishers, New Delhi.

Kashyap, Subhash C(1999) **The Disenfranchised Soldier**, The HT, New Delhi, 02 August, pp 8, Coln 2-5.

Kendler, Howard H (1968) **Basic Psychology, Part-3 Chapter –8 – Motivation – The Energizer of Behavior**, Appleton- Century – Crofts, New York.

Kennedy, Gavin (1974), **Military in the Third World**, Duckworth, London.

Khan, Sakina Yusuf (1999) **Today The Paeans , Forever The Pain**, TOI, New Delhi.

Kochhar, SK (1975) **Educational and Vocational Guidance in Secondary Schools**, Fourth Revised Edition, Sterling Publishers, New Delhi.

Kochhar, SK (1979), **Guidance and Counseling in College and Universities**, Sterling Publishers Pvt Ltd, New Delhi.

Kotler, John P and Others (1978), **Self-Assessment and Career Development**, Prentice-Hall Inc, New Jersey.

Krishna, Maj Gen Ashok, AVSM (1998), **India's Armed Forces: Fifty Years of war and Peace**, Lancer Publishers, New Delhi.

Kumar Dinesh (1999) **Officers Raring to Go to Kargil**. HT New Delhi Edition, 27 June, pp 1 Coln 2-4.

Kumar Dinesh (1999) **Words of Solidarity with the Soldier**. The Times of India, Delhi Edition, 29 Jul. pp 1 Coln 2-3

Kumar, Akshay (1997), **Motivation and Leadership**, Commonwealth Publishers, New Delhi.

Kumar, Dinesh (2000), **Resource Crunch Hurts Army's War – Fighting Capabilities**. TOI 6th March pp 1.

Kumar, Dinesh (1998) **Army and the Nation. Need for Introspection**. TOI 15 Jan pp 6.

Suggested Readings

Kumar, Dinesh (1998) **IAF Air Safety Record Heading for a nosedive. Eight fighter planes lost in 4 months.** The TOI – 2nd Sept pp 6.

Kumar, Dinesh (1998) **Equipment crunch Bane of Army in Kashmir** . The Times of India 30 June coln 5-6 pp 6.

Kumar, Dinesh (1998) **Majority of Jawans Favour Retirement over Extension of service.** TOI 16 Sept pp 7.

Kumar, Dinesh (1998) **Top Naval officers unhappy with Personnel policy.** TOI 22 Sept pp 9.

Kumar, Dinesh (1999) **Army Operations Stymied By Financial Crunch,** TOI, New Delhi, 26 June, pp 8, Coln 2-5.

Kumar, Dinesh (1999) **Death Stalks Jawans at every step in Kargil.** TOI 1st June pp 4.

Kumar, Dinesh (1999) **IAF Chief Cautions on Depleting Force Levels,** TOI 18 May pp 1.

Kumar, Dinesh 1998 **‘George wants Restructuring of MOD – Bureaucracy Armed Forces divide unfortunate’**, TOI 8th October pp 1.

Kumar, Maj Niranjana (1996) **Impact of Social, Political and Economic conditions on careers of Defence Personnel,** USI July-Sept pp 326-337.

Lindzey, Gardner (1964) **Assessment of Human motives,** Holt, Rinehart and Winston, New York, July Edition.

London, Manual and Stumpf, Stephen A (1982), **Managing Career,** Addison-Wesley Pub Co., Massachusetts.

Luthra, Prof Renu (2000), **Motivation – A Blue Chip Management Tool,** Management Dynamics Journal Volume '1 No 1 March 2000 pp 18-21, Jaipuria Institute of Management, Gomti Nagar, Lucknow.

Madhok, Maj Gen VK (Retd) (1990) **The 21st Century Armed Forces Officer,** USI Journal, New Delhi, Jul-Sep, PP 341.

Madhok, Maj Gen VK (Retd) (1992), **Territorial Army: Time to Consider Citizen Soldier's Relevance,** USI Journal, New Delhi, Apr-Jun, pp 224-228.

Mahajan, Lt Gen RN, PVSM, VSM (Retd) (2000). **A Career in India's Armed Forces: How to Make it More Attractive,** Ocean Books Pvt Ltd, First Edition, New Delhi.

Mahesh VS (1993) **Thresholds of Motivation – The Corporation AS a Nursery For Human Growth** Tata Mc Graw Hill Publishing Co Ltd, New Delhi.

Suggested Readings

Mahesh, VS (1989) Threshold of Motivation: Corporation as a Nursery for Human Growth, Ideological Book House, New Delhi.

Mann, Normal L and Others (1967) Introduction to Psychology, Part 5- Motivation and Emotional Behaviour, Oxford and IBH Publishing Co. Pvt Ltd, New Delhi, First Edition, Reprint.

Masland, John W and Radway, Lawrence I (1957), Soldiers and Scholars, Princeton University Press, Princeton.

Maslow, Abraham H (1954), 'Motivation and Personality'. Harper and Sons, Second Edition.

Mayhew, Lewis B (1974) Reform in Graduate and Professional Education, Jassay-Bass Publisher, San Francisco.

Mc Clelland, David (1987) 'Human Motivation'. Cambridge University Press, Cambridge, First Edition

Mc Clelland, David C and Winter, David G (1969), Motivating Economic Achievement, The Free Press, New York.

MC Keachie, Wilbert James and Others (1966) Psychology, Chapter 7 Motivation, Addison – Wesley Publishing Co. New York. Pp 204-254.

Mehra, Air chief Marshal OP, PVSM (Retd) (1997), The Impact of Decreased Defence Spending on the Indian Armed Forces, USI Journal, New Delhi, Jan-Mar pp 08-18.

Military and Society-Proceedings of a Seminar held at Vigyan Bhawan, New Delhi on 20-21 October 1986 and organized by the USI and Editors Guild of India under the chairman ship of Lt Gen AM Vohra.

Mishra, Law Kumar (1999) 'Kargil Muslims fully back Indian Troops'. TOI 25 June pp 9.

Maslow, AH (1954, Motivation and Personality –Harper and Sons, New York.

Motivation (1998), Harvard Business Review- The Management of Decision Makers: Reprint of Selected Articles.

Mudgal, NK (1999) The Yogis in Uniform, HT, New Delhi, 30 July, pp 8, Coln 2-5.

Mukhopadhyay, B (1994), Motivation in Educational Management: Issues and Strategies, Sterling Pubs Pvt Ltd, New Delhi.

Murrell, Howell (1974) Motivation at work, Methuen and Co., London.

Suggested Readings

Nalapat, MD (1998), **Services Angry with Bureaucratic Interference and Obstruction**. TOI dated. 29th Sept pp 8.

Nalapat, MD (1999) **'Govt. targets Bhagwat's Friends in Navy'** TOI 11 March pp 3.

Narayan, Ray (1979), **Military Psychology**, National Psychology Corporation, Agra.

Nath, Rajendra (1990), **Military Leadership in India: Vedic Period to Indo-Pak Wars**, Lancers Book, New Delhi.

Nicholas, JD and Other (1959), **The Joint and Combined Staff Officers Manual**, The Stack pole Co, Pennsylvania.

Nolker, Helmut and Schoenfeldt, Eberhard (1985) , **Vocational Training: Teaching, Curriculum Planning**, 2nd Edition, Wiley Eastern Ltd, New Delhi.

Norris, Willa and Others (1972), **The information Service in Guidance for career Development and Planning**, Third Edition, Rand MC Nally Publishing Co, Chicago.

Officer Shortage in Defence Services, (1997), Defence Management , Apr-Sep. pp 85-92.

Palsokar, Col RD MC (Retd.) (1984) **On Motivation**, USI Journal – April-June pp 164-170.

Pareek, Udai (1993), **Motivating Organisational Roles: Role Efficacy Approach**, Rawat Publications, Jaipur.

Pestonjee DM (1991) **Motivation and Job Satisfaction**, Mc Millan India Limited, Madras, First Edition.

Peters, RS (1958), **The concept of Motivation**, Rutledge and Kegan Paul, London.

Pietrofesa, John J and Splete. Howard (1975), **Career Development, Theory and Research**, Grune and Stratton, New York.

Pinto, Maj Gen Wag PVSM, (1977) – **Motivation – A Valuable Human Asset**, College of Defence Management Secunderabad Journal June 1-3.

Prentice William (1980), **Career Control**, Billing and Son, London.

Proceeding of a National Security Seminar on Recruitment into the Officer Corps of the Armed Forces, held at USI, Kashmir House, New Delhi on 14 Feb 1977.

Proceeding of a seminar held at United Services Institute of India, New Delhi on 14 Feb 1977 on Recruitments into the Officer Corps of The Armed Forces under the Chairmanship of Maj Gen D Som Dutt (Retd).

Suggested Readings

Proceedings of a National Security Seminar on Retiring Age in the Armed Forces under the Chairmanship of Brig NB Grant held at USI, On 03 Dec 1975.

Proceedings of a National Security, Seminar on '**Military and Society**, Held Under the Chairmanship of Lt Gen AM Vohra at Vigyan Bhawan on 20-21 Oct 1986, Organized by USI and Editors Guild of India.

Punia, Commodore HS (1979) **Perspectives in the Motivation of the services**, college of Defence Management Journal, December, pp 4-9.

Questions and answers between Kumar Dinesh and Pal Lt Gen Krishna, GOC 15 Corps. '**Financial Autonomy to Chief will make Army More Effective**'. Times of India 23 June 1998.

Raghu, Man Vin (2000) **Military Leadership-challenge and Tasks in The Third Millennium** Combat Journal April-June, College of Combat, Mhow (MP) pp 122-125.

Rane, WR and Naik, Usha (1987), **Career Planning in Management in India and Abroad: Courses and career, Opportunities in management and Executive Training**, Himalaya Publishing House, Girgaon, Bombay, First Edition.

Rao, Maj NS (1997) **Indian Armed Forces: The 21st Century**, Combat Journal, Mhow, Vol 26, No 3, pp 34.

Ratnaparkhi, Capt HS (1987) **Motivation Today**, USI Journal October-December pp 354-361.

Ray Swigh Ed(1994), **Educational and Vocational Guidance**, Commonwealth, Publication, New Delhi.

Recruitment and Training, Sainik Samachar , Vol 44, No 9, 1-15 May 1997.

Rettig; Jack L (1974), **Career: Explorations and Decision**, Prentice-Hall Inc, Englewood Cliffs, New Jersey

Roe, Anne (1954) **The Psychology of Occupations**, Wiley Publications, New York.

Rosenberg, Morris (1957) **Occupations and Values**, The Free Press, Illinois, Glencoe.

Roy SK and Menon, A Sree Kumar.Eds (1974) **Motivation and Organizational Effectiveness**, Shri Ram Center for Industrial Relations and Human Resources, New Delhi.

Ruch, Floyd L (1941) **Psychology and Life, Chapter on Motivation**, Scott, Foresman and Co. New York, pp- 63-93.

Sachder, Radhika (1999)' **In Defence of Defenders**' TOI 15 June pp 5.

Saigal, Maj Gen Vinod, VSM (Retd) (1997) **Restructuring of The Armed Forces**, USI Journal, New Delhi, Jul-Sep, pp 330-345.

Suggested Readings

Sangwan, Soni (1999) **Rajputana Rifles Sets Up Care Cells for Widows, Orphans, Disabled Soldiers**, The HT, New Delhi, 28 July, pp 4, Coln 4-6.

Sarkar, Bidyut (1990), **Career and competition Times** The Times of India, New Delhi, Oct-Dec 90, Jan –Dec 91, Feb-Mar 92 and July –Dec 90.

Sarkar, Jadunnath (1960), **Military History of India**, Orient Language, Bombay.

Schan, Edgar H (1978), **Career Dynamics: Matching individual and Organizational Needs**, Addison Wesley Publishing company, Inc Philippines.

Schreier, Fred T (1957), **Human Motivation, Probability and Meaning**, The Free Press, Illinois, Glencoe.

Sehgal, Rashme (1999) **An Army man in Every house**. TOI 16 Aug pp 4.

Sehgal, Rashme (1999) **Home They Brought her Warrior Dead**, TOI, New Delhi Edition, 08 August, pp 8, Coln 3-6.

Sehgal, Rashme (2000) **So Are We a Nation of Armchair Patriots?** Sunday TOI, New Delhi, 06 Feb pp-3

Sen Beniter (1999) **A Soldier's Motto: Nation Before Family**, TOI, New Delhi, 04 July 1999, pp 7, Coln 1-4.

Sengar, Pratap Singh (1993), **Adolescents and Career Building**, Bombay Popular Prakashan, Bombay.

Sharma (Maj) Gautam (1990), **Valour and Sacrifice: Famous Regiments of the Indian Army**, Allied Pubs Ltd, New Delhi.

Sharma (Major) Gautam (1966) **Indian Army Through The Ages**, Allied Publishers Pvt. Ltd, New Delhi.

Sharma, Kapil Dev (1990), **Motivational Aspects in Organizational Behavior**, Allied Pacific Pvt Ltd, Bomaby.

Sharma, Lt Col Gautam (Retd) (2000), **Indian Army-A Reference Manual**, Reliance Publishing House, New Delhi.

Sharma, Manmohan (2000), **I shall Not Volunteer in Roads of Corruption in the Indian Army**, Trishul Pubs, New Delhi.

Sharma, S Chander (2000) **Camp Motivates Children to Join Army**, Indian Express, New Delhi. pp 5 Coln 2-3.

Sharma, Sant Kumar (1999) **Pilfered Army Goods Flood Leh Markets**, TOI, 07 August, pp 7 Coln 1-4.

Suggested Readings

Sharple, Carroll L (1961) **Occupational Information, Its Development and Application**, Third Edition, Prentice Hall Inc, New Jersey.

Shingleton, John (1990), **College to Career Finding Yourself in the Job Market**, McGraw Hill Book, Company, New York.

Shishi, SS (1978), **Defenders of India**, MacMillan India Ltd , New Delhi.

Shivarudrappa, G (1988), **Vocationalisation of Education** Himalaya Publishing House, Bombay.

Singh, Arjun (1989), **The Management of Defence**, USI Journal, New Delhi, July-Sep, pp 263.

Singh, Dr. (Mrs.) MK (1985) '**Implications of changing Recruitment Ideology for Indian Army**', USI, Jan-Mar pp 32-43

Singh, Jaswant (1999) '**Defending India**', Mac Millan, India Ltd, New Delhi.

Singh, Lt Gen R K Jasbir, PVSM, (Retd), (2002), Editor **Indian Defence Year Book**, Natraj Publishers New Delhi.

Singh, Lt Gen VK, PVSM (Retd) (1998) **Integrating the Armed Forces**, USI Journal, New Delhi, Oct-Dec, pp 654-659.

Singh, Lt Sanjay J (1993) **Military Leadership in Modern Environment**, USI Journal, New Journal, Jul-Sep, pp 320-334.

Singh, Madan Paul (1976), **Indian Army Under East India Company**, Sterling Publication Ltd, New Delhi.

Singh, Rajendra (1963), **History of the Indian Army**, Army Education Stores, New Delhi.

Singha, Dirgananand (1974) **Motivation and Rural Development**, Minerva Associates (Pub) Pvt Ltd, Calcutta.

Sood, Lt Gen (Retd.) VK (1998)- **Structuring Nation Security Management** TOI 15 March pp 3.

Spence,. Kenneth W and Spence, Janet Taylor Ed (1956), **The Psychology of Learning and Motivation**, Yale University, New Hawen.

Srivastava, Siddarth (1999) **Crippled in Combat: They also serve who survive with scars**, HT New Delhi, 20 Aug, pp 8, Coln 3-6.

Srivastava, Siddarth (1999) **War Veterans: Carrying Wounds in Peace-time too**, TOI, New Delhi, 19 July , pp 4 Coln 5-8.

Suggested Readings

Staley, Eugene (1973), **Work Oriented General Education**, Bombay Popular Prakashan, Bombay.

Stan, Donald and Rosen, Jeffrey J (1974), **Motivation and Emotion**, Mc Millan Publishing Co. New York.

Steers, M Richard (1975) '**Motivation and Work Behavior**'. Mc Graw Hill Tosho Printed Co Ltd, Tokyo, Japan.

Strong, Edward K (1964) **Vocational Interests of Men and Women**, Stanford University Press, California.

Super, Donald E (1957) **The Psychology of Careers: An Introduction to Vocational Development**, Harper and Row, New York.

Survey report of Marketing and research group. May 1995.

Tahiliani, Admiral (Retd.) RH (1999) – **Restoring Morale of Armed Forces** – TOI 24 May.

Taylor, Felicity (1980), **Career in Teaching**, Kagan Page Ltd, London.

Teevan, Richard and Smith, Barry D (1967) **Motivation**, Mc Graw –Hill Book Co. New York.

Teevan, RC and Birlney, RC Eds (1964), **Theories of Motivation in Learning**, D Van Nostrand, Princeton.

Teevan, RC and Birney, RC Eds (1964), **Theories of Motivation in Personality and Social Psychology, and Enduring Problem in Psychology**, Dvan Nostrand, Princeton, New Jersey.

Thakur, Panchalee (1999) **A Proud but Bitter Family of 71 Martyr**, Times Of India, New Delhi, 13 July, pp 4, Coln 2-5.

Thapan, Lt Gen ML, PVSM (Retd) (1992), **The Education of Service Officer**, USI Journal, New Delhi, Jul-Sep, PP 373-376.

The Army in India and Its Evolution (1924), Superintendent, Government Printing, Calcutta.

The citizen Soldier in the Total Forces, Military Review, Oct 1993.

The Times of India News Service (1999) **Armed Forces Being Dragged into Poll Politics**, TOI, New Delhi, pp 7, 27 Aug. pp 3.

Thyagarajan, Brig A (Retd) (1999) **Future for Ex Serviceman**, TOI, New Delhi, 01 August, pp-8, Coln 3-5.

Suggested Readings

Thyagarajan, Brigadier A (Retd.) (2000). **Travails of Retired Army Officers**, TOI 20th Jan pp-3.

Times of India Report (1998) **'Ex. Army Captain remanded to Police custody'** date 30th July pp 3.

Times of India report (1998) **'Woman's Rape by Jawans assailed'** 30th June pp 3.

TOI 11th March 1999 report **Army Chief Castigates Bhagwat**.

TOI dated 11 August 1999 report **Kargil conflict proved India's competence** pp 6.

TOI dated 25th Sept 1998 report. **Army Unhappy with 2-year extension**.

TOI report dated 13 June 1999 **'Pakistan Deal Viciously with POWs'**.

TOI report dated 25 June 1999 **'Trust, set up for kin of Kargil Martyrs'**.

TOI Repot (1998) **'Govt. Bank Officials may have to join Territorial Army'**, 7th October pp 3.

Toman, Walter (1984), **An Introduction to Psychoanalytic Theory of Motivation**, Academic Press, New York.

Trzyan Thomas (1980) **Careers for the Humanities/Liberal Arts, Majors: A Guide Programs and Resources**, Humanities Research Groups, Monroe (Washington)

UNESCO (2000) **Technical and Vocational Education in Asia and Oceania**.

Vas, Lt Gen EA, PVSM (Retd) (1998) **Role of the Armed Forces in a Democracy: A Review of Fifty Years of Politico-Military Decision Making (Part-I)**, USI Journal, New Delhi, Oct-Dec, pp 630-643.

Venkateswaran, AL (1967), **Defence Organization in India; A Study of Major Development in Organization and Administration Since Independence**, Government

of India Publications, Division, New Delhi.

Verma, Dharendra (1990), **Administration of Technical Vocational Education: Principles and Methods**, Sterling Pubs, New Delhi.

Vernon, Walter M (1972) **Motivating Children: Behavior Modification in the Classroom**, Rinehart and Winston, Inc, New York.

Vitales, Morris (1962) **Motivation and Moral in Industry**, Allied Pacific Pvt Ltd , Bombay.

Vohra, Lt Gen AM (1998) **The Image of the Armed Forces** published by USI in the Journal Jan-March pp 26-42.

Suggested Readings

Vohra, Lt Gen AM, PVSM (1996) '**Ethos of the Armed Forces**', published by USI, New Delhi, pp. 106-120.

Vroom, Victor H (1964), **Work and Motivation**, Wiley and Sons Inc, New York.

Wasan, Tarun (1998) **Women in Uniform – A force to Reckon With**. Times of India 8th Sept, coln 7-8 pp 8.

Weiler, Nicholas W (1977), **Reality and Career Planning: A guide for Personal Growth**, Addison – Wesley Publication Co, Amsterdam.

Weiler, Nicholas W (1977), **Reality and Career Planning: A Guide for Personal growth**, Addison – Wesley Publishing Co. Amsterdam.

Weiner, Bernard Ed (1974), **Cognitive views of Human Motivation**, Academic Press, New York.

Wenzel George L (1970) **Motivation Training Manual**, Wenzel Associates, Texas.

Winter, Elmer L (1971), **Your Future in Jobs Abroad**, Arco Pub Co, New York.

Wong, Roderick (1977) **Motivation: A Behavioral Analysis of Consummatory Activities**, Rinehart and Winston Inc, New York.

Young, Paul Thomas (1963) **Motivation and Emotion, A Survey of the Determinants of Human and Animal Activity**, John Wiley and Sons, New York.

Zander, Alvin (1971) **Motives and Goals in Groups**, Academic Press, New York.

Zimbardo, Phillip G (1969), **The Cognitive Control of Motivation: The Consequences of Choice and Dissonance**, Scott Foreman Co, Illinois.

Appendix 'A'

Details of Serving/Retired Respondents

Appendix 'B'

Length of Service of Defence Respondents

Appendix 'A'
(Refer Para 5.723)

Details of Serving/Retired Defence Respondents

S No	Status	Army		Indian Navy		IAF		Overall Statistics	
		'f'	%	'f'	%	'f'	%	'f'	%
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)
1.	Serving	91	71.65	07	87.5	13	86.66	111	74.0
2.	Retired	17	13.38	01	12.5	01	6.66	19	12.66
3.	Retired and Re-employed	19	14.96	Nil	Nil	01	6.66	20	13.33
	Total	127	100%	08	100%	15	100%	150	100%

Appendix 'B'
(Refer Para 5.723)

Length of Service of Defence Respondents

S No	Length of Service in years	Army		Indian Navy		IAF		Overall Statistics	
		'f'	%	'f'	%	'f'	%	'f'	%
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)
1.	0 – 5	17	13.38	01	12.5	02	13.33	20	13.33
2.	6 – 10	23	18.11	Nil	Nil	03	20.0	26	17.33
3.	11 – 15	23	18.11	04	50.0	02	13.33	29	19.33
4.	16 – 20	12	9.44	02	25.0	04	26.66	18	12.0
5.	21 – 25	26	20.47	01	12.5	03	20.0	30	20.0
6.	26 – 30	19	14.96	Nil	Nil	01	6.66	20	13.33
7.	31 – 35	07	5.51	Nil	Nil	Nil	Nil	07	4.66
	Total	127	100%	08	100%	15	100%	150	100%

Appendix ‘C’

Rank Structure of Defence Respondents

Appendix ‘D’

**Details of Combat Arms or Supporting
Arms/Services of Defence Respondents.**

Appendix 'C'
(Refer Para 5.723)

Rank Structure Of Defence Respondents

S No	Rank	Army		Indian Navy		IAF		Overall Statistics	
		'f'	%	'f'	%	'f'	%	'f'	%
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)
1.	Lt/Equivalent	07	5.51	01	12.5	02	13.33	10	6.66
2.	Capt/Equivalent	15	11.81	Nil	Nil	03	20.0	18	12.0
3.	Maj/Equivalent	31	24.40	04	50.0	02	13.33	37	24.66
4.	Lt Col/Equivalent	42	33.07	02	25.0	04	26.66	48	32.0
5.	Col/Equivalent	21	16.53	01	12.5	03	20.0	25	16.66
6.	Brig/Equivalent	09	7.08	Nil	Nil	01	6.66	10	6.66
7.	Maj Gen/Equivalent	02	1.57	Nil	Nil	Nil	Nil	02	1.33
	Total	127	100%	08	100%	15	100%	150	100%

Appendix 'D'
(Refer Para 5.723)

**Details Of Combat Arm or Supporting Arm/Supporting
Service Of Defence Respondents**

S No	Type of Arm	Army		Indian Navy		IAF		Overall Statistics	
		'f'	%	'f'	%	'f'	%	'f'	%
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)
1.	Combat Arm (Infantry & Armoured Corps of Army, Executive of I N and Flying of IAF)	101	79.52	05	62.5	11	73.33	117	78.0
2.	Supporting Arm/Service (e.g. Artillery, Engineers Signals etc., of IA, Logistics of IN and IAF)	26	20.47	03	37.5	04	26.66	33	22.0
	Total	127	100%	08	100%	15	100%	150	100%

Questionnaire For Students

NCC Group HQ
Lawson's Bay Colony
Visakhapatnam - 530017

Dear Respondent,

I am a serving Army Officer pursuing Doctorate in Business Administration (DBA) from Aligarh Muslim University (AMU), Aligarh (UP) in collaboration with All India Management Association (AIMA). In partial fulfillment of this doctoral programme, I need to complete a research project. For this purpose I have selected the topic 'Motivational factors of Indian Youth while Opting for a Career: Implications for the Recruitment Policies of the Armed Forces'.

I need your kind cooperation and help for successful completion of this study. You may please fill in the accompanying Questionnaire. Your free and frank response would enable me to draw meaningful inferences. I will use the information furnished through this questionnaire only for academic purpose and keep the same strictly confidential.

Please answer all the questions and return at your earliest convenience.

(Dharmendra Singh)
Lt Col

Q.1. Using the scale given below, indicate the involvement of following individuals in the choice of your career (Least Involved = 'LI', somewhat Involved = 'SI', Quite Involved = 'QI', Highly Involved = 'HI')

S No	Individuals	LI	SI	QI	HI
1.	Mother				
2.	Father				
3.	Sister/Brother				
4.	Teacher				
5.	Friends				
6.	Relatives				
7.	Grandparents				
8.	<u>(If any other person, specify)</u>				

Questionnaire for Students

Q.2. Rank the following professions from 1 to 10 where 1 indicates your most preferred profession, 2 the second most preferred and so on. (Put a Tick Mark on the specific subcategory wherever applicable).

S No	Professions	Rank
1.	Teaching	
2.	Career in Creative/ Performing Arts (Singing/Music/Dance/Painting/Journalism)	
3.	Civil Services e.g., (IAS/IPS and Allied Services)	
4.	Defence Services (Indian Army/Indian Navy/ Indian Air Force)	
5.	Independent Professional (Doctor/Engineer/Lawyer/Financial Experts)	
6.	Private Sector (Indian Company/MNC)	
7.	Public Sector	
8.	Self Employed	
9.	Computer and IT Professionals	
10.	_____	
	(If any other profession, specify)	

Q.3. Indicate the degree of importance of the following factors in making your choice (use the specified scale). Least Important = 'LI', Somewhat Important = 'SI', Quite Important = 'QI', Very Important = 'VI'

S No.	Factors	Degree of Importance			
		LI	SI	QI	VI
1.	Power & Authority				
2.	Prestige in Society				
3.	Challenging Work				
4.	Opportunity to Earn a Lot				
5.	Job Security				
6.	Job Close to Hometown				
7.	Job in a Large Metro				
8.	Opportunity to Serve the Nation				
9.	Adventurous Life-style				
10.	Security of Self & Family				
11.	Feeling of Togetherness among Fellow Workers				
12.	Glamour of Uniform				

Questionnaire for Students

Q.4. What steps do you suggest to attract modern day youth towards Defence Services?

1. -----

2. -----

3. -----

Q.5. In which state do you reside? -----

Q.6. Your house is in (Tick Mark Marks)

A Metropolis	
A City	
A Town	
A Village	

Q.7. Your Religion (Tick

Hinduism	
Christianity	
Sikhism	
Islam	
Other (Specify)	

Q.8. Specify the category to which you belong:

SC	
ST	
OBC	
General	

Q.9. State the type of your School (Tick Mark Below):-

Private School	
Central School	
State Govt. School	
Other (Specify)	

Q.10. No. of Brothers _____

Q.12. Sex: M / F

Q.11. No. of Sisters _____

Q.13. Age: _____ Years.

Q.14. Your Division from class X onwards:

Class	Division
X	
XII	
Graduation	
P.G.	

Q.15. State the educational status of your parents (Tick Mark).

Educational Status	Father	Mother
Matriculation or Less		
Graduate		
P.G. & above		

Q.16. Your family's monthly income in Rupees (Tick Mark):-

Up to 5000	
5001 – 10000	
10001 – 20000	
20001 - above	

Q.17. Mention the occupation of your parents in the adjacent space (e.g. Doctor,

Engineer, Teacher etc).

Mother	
Father	

Q.18. Is any of your family members in the Defence Services? Write (Yes/No) _____
(If yes, state the branch and designation and relationship with _____)

Questionnaire for Students

Q.19 Which kinds of family do you have? (Tick Mark)

Nuclear	
Joint	
Other (Specify)	

Telephone Number (with STD codes) (Optional):- _____ (O)
_____ (R)

E Mail Address(Optional)_____

Appendix 'F'
(Refer Para 5.92)

Questionnaire for Defence Personnel

NCC Group HQ
Lawson's Bay Colony
Visakhapatnam-530017

Dear Respondent,

I am a serving Army Officer pursuing Doctorate in Business Administration (DBA) from Aligarh Muslim University (AMU), Aligarh, (UP) in collaboration with All India Management Association (AIMA). In partial fulfillment of this doctoral programme, I need to complete a research project. For this purpose I have selected the topic, 'Motivational Factors of Indian Youth while Opting for a Career: Implications for the Recruitment Policies of the Armed Forces'.

I need your kind cooperation and help for successful completion of this study. You may please fill in the accompanying Questionnaire. Your free and frank response would enable me to draw meaningful inferences. I will use the information furnished through this questionnaire only for academic purpose and keep the same strictly confidential.

Please answer all the questions and return the questionnaire at your early convenience.

(Dharmendra Singh)
Lt Col

Q.1. List the reasons for shortfall of manpower in the officer's cadre of the defence services?
(Write briefly in point form)

1. -----
2. -----
3. -----
4. -----
5. -----
6. -----
7. -----
8. -----

9. -----

10. -----

Q.2. Defence Services have employed certain measures to overcome shortfall of officers. Indicate your opinion regarding the degree of effectiveness of these measures using the scale given below:

Least Effective = 'LE', Somewhat Effective = 'SE', Quite Effective = 'QE',

Very Effective = 'VE'

S No	Measures	Degree Of Effectives			
		LE	SE	QE	VE
1.	Diluting selection standards.				
2.	Media campaign e.g. 'Do you have it in you?'				
3.	Filing up vacancies of officers through Personnel Below Officers Ranks (PBOR) e.g. RCOs and SCOs.				
4.	Curtailing pre-commission training period.				
5.	Encouraging Junior commissioned officers (JCOs) and Non Commissioned Officers (NCOs) to shoulder enhanced responsibilities				
6.	Increasing attachment period of newly commissioned officers from services with infantry.				
7.	Increasing intake of short service commissioned officers (SSCOs)				
8.	Introducing Stipend of Rs. 8000/- p.m. during pre-commission training.				
9.	Enhancing promotional prospects by reducing service requirement for substantive ranks of Captain (from 6 to 5 years), Major (from 11 to 10 years), and Lt Col (from 21 to 20 years).				
10.	Encouraging lady officers to join the Armed Forces.				
11.	Motivating 'C' certificate qualified NCC cadets for entry into officer's cadre.				
12.	Embodiment of Territorial Army Officers for employment in insurgency (CI) areas with TA units.				
13.	Raising Rashtriya Rifles units for CI operations and pooling in officers from all arms rather than Infantry alone.				
14.	Re-employing retired officers of the rank up to Colonel/Equivalent in the appointment tenable by Captain and Major/Equivalent				

Q. 3. Suggest measures that in your opinion may attract youth towards the Defence Services.
(Write briefly)

1. _____
2. _____
3. _____
4. _____
5. _____

Q.4. Whether Serving/Retired: _____ (S/R)

Q.5. State the department to which you belong. _____ (e.g. IAS, Army, BSF, etc)

Q.6. Indicate length of service rendered. _____ (years)

Q.7. Present rank/rank last attained in service _____

Q.8. Indicate your Indian Defence Services Arm-Combat (e.g. Infantry of IA, Executive Branch of IN, Flying Branch of IAF) **OR** Supporting Arm/Service _____
(Use 'CA' For combat arm and 'SAS' for supporting Arms/service)

Q.9. In which state do you reside? _____

Q.10. Your house is in (Tick Mark)

A Metropolis	
A City	
A Town	
A Village	

Q.11. Your Religion (Tick Mark)

Hinduism	
Christianity	
Sikhism	
Islam	
Other (Specify)	

Q.12. Specify the category to which you belong

SC	
ST	
OBC	
General	

Q.13. State the type of your School
(Tick Mark Below):-

Private School	
Central School	
State Govt. School	
Other (Specify)	

Q.14. No. of Brothers _____

Q.15. No. of Sisters _____

Q.16. Sex: M / F

Q.17. Age: _____ Years.

Q.18. Your Division from class 10th onwards:

Class	Division
X	
XII	
Graduation	
P.G.	

Q.19. State the educational status of Your parents (Tick Mark).

Educational Status	Father	Mother
Matriculation or Less		
Graduate		
P.G. & above		

Q.20. Your family's monthly income in rupees (Tick Mark)

Up to 5000	
5001 – 10000	
10001 – 20000	
20001 – Above	

Q.21. Mention the occupation of your parents in the adjacent space (e.g. Doctor, Engineer, Teacher etc).

Mother	
Father	

Q.22. Is any of your family members in the Defence Services? Write (Yes/No) _____

If yes, state the branch, designation and relationship with you _____

Q.23. Which kind of family do you have? (Tick Mark)

Nuclear	
Joint	
Other (Specify)	

Telephone Number (with STD codes) (Optional):- _____ (O.)

: _____ (R.)

E-mail Address (Optional) : _____

Appendix ‘G’

Hindi Version of Questionnaire for Students

विद्यार्थियों के लिए प्रश्नावली

राष्ट्रीय इंटर कोर ग्रुप हेडक्वार्टर
लॉमन्स गे कॉलोनी
विकारवा नॉटमस-650017

प्रिय प्रश्नार्थी,

मैं सेना में सेवारत अधिकारी हूँ। तथा अतीव महत्त्वपूर्ण विषयविषय अतीव महत्त्वपूर्ण से अखिल भारतीय प्रबंधन समिति के सहयोग से व्यापार प्रशासन में डॉक्टरेट की उपाधि के लिए रिकॉर्ड में कार्यरत हूँ। इस डॉक्टरेट के कार्यक्रम में मुझे एक शोध पत्र पूरा करना है। इस शोधपत्र की प्राप्ति के लिए मैंने जो विषय चुना है, "भारतीय युवाओं में जीवनिका तथ्य के लिए प्रेरक तत्व जिसका संसार सशस्त्र सेना में भर्ती के नियमों से है।"

मैंने इस अध्ययन में आप के सहयोग एवं सहायता की आवश्यकता है। आपका स्वतंत्र एवं निःसंकोच जवाब मेरे शोध पत्र को पूरा करने में सहायक होगा। आप की सूचना जो मैं केवल अध्ययन हेतु ही उपयोग करूँगा। तथा इसे पूर्णतया गोपनीय रखूँगा।

कृपया सभी प्रश्नों का जवाब दे, तथा इसे शीघ्र वापस करें।

हरमंद सिंह
लेफ्टीनेंट कर्नल

प्रश्न :- नीचे दिये गये निश्चित निर्देशानुसार आप के जीवनिका तथ्य से संबंधित व्यक्ति वर्ग की इच्छा अनुसार चिन्हित करें। सबसे कम सक्रिय = एल. आई. अत्यधिक कुछ सक्रिय = एस. आई. अधिक सक्रिय = वयू. आई. अत्यधिक सक्रिय = एच. आई.

क्रम संख्या	व्यक्ति	I	S	V	H
1.	माता				
2.	पिता				
3.	बहन भाई				
4.	अध्यापक				
5.	मित्र				
6.	रिश्तेदार				
7.	दादा, दादी				
8.	इसके अलावा अन्य कोई				

प्रश्न 2: कर्मचारी कम कदम होने वाले पेशाओं को कम करके प्रियम में रखें। जैसे, आपका सबसे महत्वपूर्ण दोस्त दोस्त को अपने काम को कम महत्वपूर्ण बनाएँ। (जहाँ आप अपनी प्रियम को कम करके रखें।)

क्रम	पेशा	कदम
1	शिक्षण	
2	सूचना एवं संचार (संगीत, बाद्य, नृत्य, रंगमंच, पत्रकारिता)	
3	सिविल नौकरियाँ (IAS/IPS एवं Allied नौकरियाँ)	
4	रक्षा सेवाएँ	
5	स्वतंत्र पेशा (डॉक्टर, इंजीनियर, वकील, शिक्षक, विशेषज्ञ)	
6	मिडिल क्लास (भारतीय कम्पनी एस. एस. सी)	
7	सरकारी सेवा	
8	स्व-रोजगार	
9	कम्प्यूटर और सूचना प्रौद्योगिकी पेशा	
10	इसके अतिरिक्त अन्य पेशा	

प्रश्न 3: आप के जिविका चयन में सहायक निम्नलिखित तत्वों को महत्व देते हैं।
निश्चित क्रिये को निम्नानुसार को प्रयोग करना है। सबसे कम महत्व = I, कम महत्व = II, सामान्य महत्व = III, अधिक महत्व = IV

क्रम	व्यवस्था	महत्व	I	II	III	IV
1	शांति व अहिंसा					
2	समाज में महत्व					
3	कुमारी पूर्ण कार्य					
4	अधिक करने के मौका					
5	पेशे की सुरक्षा					
6	घर की मजदूरी की पेशा					
7	सहजता पेशा					
8	देश सेवा करने के मौका					
9	जीवन पूर्ण जीवन शैली					
10	आपकी व परिवार की सुरक्षा					
11	सहजता के लिए अपनापन का अनुभव करना					
12	कदम की सुरक्षा					

प्रश्न 4 सशस्त्र बल में सेवा करने हेतु आप आज के युवाओं को आकर्षित करने के लिए क्या सुझाव देंगे।

प्रश्न 5. आप किस राज्य के निवासी हैं -----

प्रश्न 6. (टिक मार्क)

आप का घर में है

महानगर	
ए शहर	
ए कस्बा	
ए गाँव	

प्रश्न 7 (टिक मार्क)

आपका धर्म है

हिन्दू धर्म	
ईसाई धर्म	
सिख धर्म	
अन्य धर्म	

प्रश्न 8. आप किस श्रेणी से संबंध रखते हैं

पिछड़ी जाति	
पिछड़ी जनजाति	
अन्य पिछड़ी जाति	
ए गाँव	

प्रश्न 9. आप किस विद्यालय में शिक्षा पाई/ पा रहे हैं ?

मीजि विद्यालय	
केंद्रीय विद्यालय	
राजकीय विद्यालय	
अन्य कोई	

प्रश्न 10. भाईयों की संख्या ---

प्रश्न 11. बहनों की संख्या -----

प्रश्न 12. लिंग पु/ स्त्री

प्रश्न 13. उम्र ----- वर्ष

Appendix 'G'
Ref Para 5.11

प्रश्न 14 कक्षा 10 तथा आगे की श्रेणी

कक्षा	श्रेणी
10 स्तर	
12 स्तर	
स्नातक	
स्नातकोत्तर	

प्रश्न 15 आप के माता पिता की शैक्षणिक योग्यता टिक मार्क

शैक्षणिक योग्यता	पिता	माता
दशवीं या कम		
स्नातक		
स्नातकोत्तर या अधिक		

प्रश्न 16 आप के परिवार का मासिक

0000 तक	
5001-10000	
10001-20000	
20001- ऊपर	
स्नातकोत्तर	

प्रश्न 17 आप के माता पिता व्यवसाय टिये आय रुपये में 1 गये स्थान में (इंजीनियर, डाक्टर, शिक्षक इत्यादि)

माता	
पिता	

प्रश्न 18 क्या आप के परिवार का कोई सदस्य सशस्त्र सेना में है हां/नहीं यदि हां तो उनका शाख एवं पद तथा सञ्च के साथ लिखिए।

प्रश्न 19 आप का परिवार किस प्रकार का है 1 (टिक मार्क)

एककी परिवार	
संयुक्त परिवार	
अन्य कोई	

दूरस्थ सञ्च (एस टी डी कोड के साथ) (अनिश्चित)

(आ)

(आर)

ईमेल पता (अनिश्चित)

Appendix 'H'

**Degree of Involvement of Various Individuals
in the Choice of Career of School Students**

Appendix 'H'
(Refer Para 6.221)

**Degree of Involvement Of Various Individuals In
The Choice Of Career Of School Students (75)**

S No	Individuals	LI Frequency	SI Frequency	QI Frequency	HI Frequency	N Frequency	Total Score	%	Position
1.	Mother	10	17	18	30	75	214	71.33	1
2.	Father	20	15	27	13	75	183	61.0	6
3.	Sister/Brother	18	19	18	20	75	190	63.33	4
4.	Teacher	20	17	16	22	75	190	63.33	4
5.	Friends	18	17	15	25	75	197	65.66	3
6.	Relatives	15	15	24	21	75	201	67.0	2
7.	Grand Parents	23	15	17	20		184	61.33	5
8.	Others Girls Friends	-	-	-	3	3	12	4.0	7
9.	Celebrities	-	2	-	-	2	4	1.33	8

Abbreviation

LI – Least Involved
SI – Some what Involved
QI – Quite Involved
HI – Highly Involved

Appendix 'I'

**Degree of Involvement of Various
Individuals in the Choice of Career of
Under Graduates**

Appendix 'I'
(Refer Para 6.221)

**Degree Of Involvement Of Various Individuals In The
Choice Of Career Of Under Graduates (75)**

S No	Individuals	LI Frequency	SI Frequency	QI Frequency	HI Frequency	Total Frequency	Total Score	%	Position
1.	Mother	-	14	30	31	75	242	80.66	2
2.	Father	1	7	33	34	75	250	83.33	1
3.	Sister/ Brother	13	27	19	16	75	188	62.66	6
4.	Teacher	08	20	27	20	75	209	69.66	3
5.	Friends	11	14	30	20	75	209	69.66	3
6.	Relatives	18	22	13	22	75	189	63.0	5
7.	Grand Parents	18	19	16	22	75	192	64.0	4
8.	Others	-	-	NIL	-	-	-	-	-

Appendix 'J'

**Degree of Involvement of Various Individuals in the
Choice of Career of PG Students**

Appendix 'J'
(Refer Para 6.221)

**Degree Of Involvement Of Various Individuals in The Choice Of
Career Post Graduate Students.**

S No	Individual	LI Frequency	SI Frequency	QI Frequency	HI Frequency	Total Frequency	Total Score	%	Overall Position
1.	Mother	-	20	20	35	75	240	80.0	2
2.	Father	5	13	17	40	75	270	90.0	1
3.	Sister/ Brother	17	27	16	15	75	179	59.66	6
4.	Teacher	8	18	18	31	75	222	74.0	4
5.	Friends	12	13	11	39	75	227	75.66	3
6.	Relatives	17	26	17	15	75	180	60.0	5
7.	Grand Parents	23	28	12	12	75	163	54.33	7
8.	Others Self- Motivation	-	12	09	-	21	51	17.0	8

Abbreviation Used

LI - Least Involved
SI - Somewhat Involved
QI - Quite Involved
HI - Highly Involved

Appendix 'K'

**Ranking of Order of Preference of School
Students for Various Broad Categories
of Professions**

Ranking Of Order Of Preference Of School Student For Various Professions

(A)
$$\frac{N}{(+)} = \frac{\text{Sum of Frequencies}}{\text{Total Score}} \times 100$$

Maximum possible score i.e. $9 \times 75 = 675$

School students (65): - The school students ranked various professions as shown below-

No	Professions	Frequencies of Ranking										@ N	Total Score	% (+)	Order of Preference
		I	II	III	IV	V	VI	VII	VIII	IX	X				
1.	Teaching	11	11	11	09	5	7	8	12	1	-	75	420	62.22	2
2.	Career in creative/performing Arts (Singing/Music/Dance/Painting/Journalism)	7	7	10	08	7	8	10	14	4	-	75	366	54.22	5
3.	Civil Services CIAS/IPS and Allied Services	12	04	12	11	8	7	4	9	8	-	75	396	58.66	4
4.	Defence Services (Army/Navy/AF)	06	04	7	11	6	6	7	9	19	-	75	313	46.37	8
5.	Independent Professional (Doctor/Engineer/Lawyer/Financial) 'Expert'	14	10	6	05	10	9	7	4	10	-	75	403	59.70	3
6.	Private Sector (Indian company/MNC)	14	15	8	06	14	11	2	3	2	-	75	466	69.03	1
7.	Public Sector	02	5	11	05	13	3	14	8	14	-	75	314	46.51	7
8.	Self Employed	08	12	04	06	9	21	13	-	-	-	75	403	59.70	3
9.	Computer, and IT Professional	9	06	05	13	2	2	9	14	15	-	75	330	48.88	6
10.	Any other Profession	-		-	-	-	-	-	-	-	-	-	-	-	-

Appendix ‘L’

**Ranking of Various Broad Categories of
Professions by UG Students**

**Ranking Of Various Broad Categories Of
Professions By Undergraduate Students (75)**

S No	Professions	Frequency of Rankings									(a) N	Total Score	%	Order of Preference
		I	II	III	IV	V	VI	VII	VIII	IX				
1.	Teaching	5	6	13	18	4	5	6	10	8	75	378	56.0	6
2.	Career in Creative/ Performing Arts (Singing/Dance/ Music/Painting/ Journalism)	10	9	17	4	12	10	9	03	01	75	439	65.03	2
3.	Civil Services (IAS/ IPS and Allied Services)	16	8	15	7	6	5	4	09	5	75	440	65.18	1
4.	Defence Services (Army/Navy/AF)	4	6	5	16	10	8	9	08	9	75	349	51.70	9
5.	Independent Professional (Doctor/Engineer/ Lawyer/Financial Expert)	6	17	5	6	12	7	6	11	5	75	403	59.70	3
6.	Private Sector (Indian Company/MNC)	14	6	5	4	11	6	10	7	12	75	368	54.51	7
7.	Public Sector	5	03	03	4	8	8	15	6	23		266	39.40	8
8.	Self Employed	7	15	4	10	6	11	10	11	01	75	398	58.96	4
9.	Computer & IT Professional	10	7	10	8	03	17	8	11	01	75	394	58.37	5
10.	Any other Profession	-	-	-	-	-	-	-	4	-	4	8	1.18	11
	(a) Acting	-	-	-	-	-	-	-	-	-	-	-	-	-
	(b) Consultancy	-	-	-	-	8	-	-	-	-	8	40	5.92	10

N = Sum of Frequencies

Appendix ‘M’

Ranking of Various Broad

Categories of Professions by PG Students

**Ranking of Various Broad Category of
Professions By Postgraduate Students (75)**

S No	Professions	Frequency of Rankings									(a) N	Total Score	%	Order of Preference
		I	II	III	IV	V	VI	VII	VIII	IX				
1.	Teaching	4	12	08	10	08	05	05	10	13	75	356	52.74	4
2.	Career in Creative/ Performing Arts (Singing/Dance/ Music/Painting/ Journalism)	3	10	6	8	08	09	12	13	6	75	341	50.51	7
3.	Civil Services(IAS/ IPS and Allied Services)	9	13	9	11	6	07	6	8	6	75	412	61.03	1
4.	Defence Services (Army/Navy/AF)	-	6	9	7	8	07	6	13	19	75	284	42.07	9
5.	Independent Professional (Doctor/Engineer/ Lawyer/Financial Expert)	3	7	12	14	11	05	8	7	8	75	372	55.11	3
6.	Private Sector (Indian Company/MNC)	7	9	13	11	05	08	09	6	07	75	395	58.51	2
7.	Public Sector	1	6	7	06	13	18	09	5	10	75	326	48.29	8
8.	Self Employed	2	10	7	05	16	13	07	9	6	75	354	52.44	6
9.	Computer & IT Professional	6	07	9	08	05	08	18	9	5	75	355	52.59	5
10.	Any other Profession	-	-	-	-	-	-	-	-	-	-	-	-	-

(a) N = Sum of Frequency

Appendix ‘N’

**Ranking Sub Categories of Various
Professions in Accordance With
Preference of School Students**

Appendix 'N'
(Refer Para 6.24)

Ranking Of Sub Categories Of Various Professions
In Accordance With preference of School Students (75)

S No.	Broad Category Of the Professions	Sub Category Of Professions	Frequency of Ranking					N	Total Score	%	Order of Preference
			I	II	III	IV	V				
1.	Career in Creative/ Performing Arts	Singing	12	9	21	19	14	75	211	56.26	4
		Music	14	11	22	8	20	75	216	57.6	3
		Dance	18	19	10	14	14	75	238	55.46	2
		Painting	9	11	19	17	19	75	199	53.06	5
		Journalism	22	25	3	17	8	75	261	69.6	1
2.	Civil Services	IAS	25	21	13	16	NA	75	205	68.33	1
		IPS	20	18	20	17	NA	75	191	63.66	2
		IFS	23	11	10	31	NA	75	176	58.66	3
		Allied Services	01	27	34	13	NA	75	166	55.33	4
3.	Defence Services	Army	9	20	46	NA	NA	75	113	50.22	3
		Indian Navy	26	28	21	NA	NA	75	155	68.88	2
		Indian Air Force	30	32	13	NA	NA	75	167	74.22	1
4.	Independent Professional	Doctor	32	20	11	12	NA	75	222	74.0	1
		Engineer	28	22	13	12	NA	75	216	72.0	2
		Lawyer	01	11	31	32	NA	75	131	43.66	4
		Financial Expert	08	24	22	21	NA	75	169	56.33	3
5.	Private Sector	Indian Company	22	53	NA	NA	NA	75	97	64.66	2
		MNC	53	22	NA	NA	NA	75	128	85.33	1

NA = Not Applicable

N = Sum of Frequency

Appendix ‘O’

**Ranking of Sub Categories of
Various Professions in Accordance
With Preference of UG Students**

Appendix 'O'
(Refer Para 6.24)

**Ranking Of Sub Categories Of Various Professions In
Accordance With Preference Of Undergraduates Students (75)**

S No.	Broad Category Of the Professions	Sub Category Of Professions	Frequency of Ranking					N	Total Score	%	Order of Preference
			I	II	III	IV	V				
1.	Career in Creative/ Performing Arts	Singing	16	8	34	10	7	75	241	64.26	2
		Music	12	9	11	28	15	75	200	53.33	5
		Dance	23	16	9	18	9	75	251	66.93	1
		Painting	13	17	9	8	28	75	204	54.40	4
		Journalism	11	25	12	11	16	75	229	61.06	3
2.	Civil Services	IAS	32	19	9	15	NA	75	218	72.66	1
		IPS	18	24	12	21	NA	75	189	63.0	3
		IFS	16	23	19	17	NA	75	188	62.66	2
		Allied Services	8	8	34	25	NA	75	165	55.0	4
3.	Defence Services	Army	18	26	31	NA	NA	75	137	60.88	3
		Indian Navy	23	25	27	NA	NA	75	146	64.88	2
		Indian Air Force	33	23	19	NA	NA	75	164	72.88	1
4.	Independent Professional	Doctor	14	16	18	27	NA	75	167	55.66	3
		Engineer	13	14	24	24	NA	75	166	55.33	4
		Lawyer	23	25	17	10	NA	75	211	70.33	1
		Financial Expert	24	19	15	17	NA	75	187	62.33	2
5.	Private Sector	Indian Company	29	46	NA	NA	NA	75	104	69.33	2
		MNC	45	30	NA	NA	NA	75	120	80.0	1

Appendix 'P'

**Ranking of Sub Categories of
Various Professions in Accordance
With Preference of PG Students**

Appendix 'P'
(Refer Para 6.24)

**Ranking of Sub Category of Various Professions In Accordance
With Preference of Postgraduate Students (75)**

S No.	Board Category Of the Professions	Sub Category Of Professions	Frequency of Ranking					N	Total Score	%	Order of Preference
			I	II	III	IV	V				
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)
1.	Career in Creative/ Performing Arts	Singing	19	14	12	12	18	75	229	61.06	1
		Music	13	17	18	13	14	75	227	60.53	2
		Dance	15	15	11	18	16	75	220	58.66	3
		Painting	12	16	15	19	13	75	220	58.66	3
		Journalism	16	13	19	13	14	75	229	61.06	1
2.	Civil Services	IAS	23	18	13	21	NA	75	193	64.33	2
		IPS	25	16	17	17	NA	75	199	66.33	1
		IFS	17	20	23	15	NA	75	189	63.0	3
		Allied Services	10	21	22	22	NA	75	169	56.33	4
3.	Defence Services	Army	17	22	36	NA	NA	75	131	58.22	3
		Indian Navy	26	23	26	NA	NA	75	150	66.66	2
		Indian Air Force	31	29	15	NA	NA	75	166	73.77	1
4.	Independent Professional	Doctor	22	23	17	13	NA	75	204	68.0	1
		Engineer	23	20	18	14	NA	75	172	57.33	3
		Lawyer	12	17	19	27	NA	75	164	54.66	4
		Financial Expert	18	15	21	21	NA	75	180	60.0	2
5.	Private Sector	Indian Company	31	44	NA	NA	NA	75	106	70.66	2
		MNC	44	31	NA	NA	NA	75	119	79.33	1

Appendix ‘Q’

**Degree of Importance of
Motivators for School
Students in the Choice of Career**

Appendix 'Q'
(Refer Para 6.26)

**Degree of Importance of Motivators/Satisfiers for School
Students in the Choice of Career**

S No	Motivators	Degree of Importance				N	Total Scores	%	Overall Relative Position
		'LI' f	'SI' f	'QI' f	'VI' f				
1.	Power and Authority	21	12	31	11	75	182	60.66	8
2.	Prestige in Society	14	22	10	29	75	204	68.0	6
3.	Challenging Work	6	20	21	28	75	221	73.66	2
4.	Opportunity to Serve the Nation	16	29	16	14	75	178	59.33	9
5.	Adventurous Life Style	34	20	10	11	75	148	49.33	13
6.	Glamour of Uniform	19	31	17	8	75	164	54.66	12
7.	Recognition & Rewards e.g. Bharat Ratna, PVC etc.	11	25	33	6	75	184	61.33	7
8.	Opportunity to earn a Lot	3	19	10	43	75	243	81.0	1
9.	Job Security	5	7	30	33	75	208	69.33	5
10.	Job Close to Hometown	10	42	15	8	75	171	57.0	10
11.	Job in a Large Metro	28	7	33	7	75	169	56.33	11
12.	Security of Self & Family	14	11	19	31	75	217	72.33	4
13.	Feeling of Togetherness among Fellow Workers	6	20	24	25	75	218	72.66	3

Abbreviations: - 'LI' = Least Important. 'SI' = Somewhat Important.
 'QI' = Quite Important 'VI' = Very Important. 'f' = Frequency of Response.
 'N' = Total frequency of response for a factor.

Appendix 'R'
Degree of Importance of
Motivators for UG
Students in the Choice of Career

Appendix 'R'
(Refer Para 6.26)

**Degree of Importance of Motivators for
Undergraduates (75) in the Choice of Career.**

S No.	Motivators	Degree of Importance				N	Total Scores	%	Overall Relative Position
		'LI' f	'SI' f	'QI' f	'VI' f				
1.	Power and Authority	8	24	18	25	75	210	70.0	4
2.	Prestige in Society	6	12	23	34	75	235	78.33	1
3.	Challenging Work	10	19	24	22	75	208	69.33	5
4.	Opportunity to Serve the Nation	13	20	25	17	75	196	65.33	7
5.	Adventurous Life Style	11	23	28	13	75	193	64.33	9
6.	Glamour of Uniform	14	26	23	12	75	183	61.0	10
7.	Recognition & Rewards e.g. Bharat Ratna, PVC etc.	9	25	29	12	75	194	64.66	8
8.	Opportunity to earn a Lot	6	12	18	39	75	201	67.0	6
9.	Job Security	8	11	21	35	75	233	77.66	2
10.	Job Close to Hometown	26	19	19	11	75	165	55.0	11
11.	Job in a Large Metro	32	19	13	11	75	153	51.0	12
12.	Security of Self & Family	8	10	24	33	75	232	77.33	3
13.	Feeling of Togetherness among Fellow Workers	18	24	15	18	75	183	61.0	10

Abbreviations: - 'LI' = Least Important. 'SI' = Somewhat Important.
 'QI' = Quite Important 'VI' = Very Important. 'f' = Frequency of Response.
 'N' = Total frequency of response for a factor.

Appendix 'S'

**Degree of Importance of Motivators
for PG Students in the
Choice of Career**

Appendix 'S'
(Refer Para 6.26)

Degree of Importance of Motivators
For Postgraduate Students (75) in the Choice of Career.

S No.	Motivators/Satisfiers	Degree of Importance				N	Total Scores	%	Overall Relative Position
		'LI' f	'SI' f	'QI' f	'VI' f				
1.	Power and Authority	10	14	27	24	75	215	71.66	2
2.	Prestige in Society	13	16	25	21	75	204	68.0	6
3.	Challenging Work	16	17	23	19	75	195	65.0	8
4.	Opportunity to Serve the Nation	14	28	17	16	75	193	64.33	9
5.	Adventurous Life Style	23	28	11	13	75	164	54.66	12
6.	Glamour of Uniform	17	23	18	17	75	185	61.66	10
7.	Recognition & Rewards e.g. Bharat Ratna, PVC etc.	26	28	11	10	75	155	51.66	13
8.	Opportunity to Earn a Lot	11	11	25	28	75	220	73.33	1
9.	Job Security	15	14	17	29	75	210	70.0	4
10.	Job Close to Hometown	26	15	19	15	75	173	57.66	11
11.	Job in a Large Metro	12	14	23	26	75	213	71.0	3
12.	Security of Self & Family	16	13	21	25	75	205	68.33	5
13.	Feeling of Togetherness among Fellow Workers	15	14	27	19	75	200	66.66	7

Abbreviations: - 'LI' = Least Important. 'SI' = Somewhat Important.
'QI' = Quite Important 'VI' = Very Important. 'f' = Frequency of Response.
'N' = Total frequency of response for a factor.

Appendix 'T'

**Chi Square Test for Establishing Degree of
Significance of Relationship between Rankings of
Defence Services by Student Respondents and their
Demographic Profile.**

**Chi Square Test for Establishing Degree of Significance of
Relationship between Rankings of Defence Services by Student
Respondents and their Demographic Profile.**

Table No. 6.332 Computation of X^2 (Regional Nativity- 1. Northern, 2. Central and 3. Southern Indian) – Refer Page No 145.

OF	EF	OF-EF	$(OF-EF)^2$	$(OF-EF)^2/EF$
47	89	-42	1764	19.82
79	79	0	0	0
99	57	42	1764	30.94

$$\Sigma = 50.76$$

$$X^2 = \sum \left[\frac{(OF - EF)^2}{EF} \right]$$

$$= 50.76$$

$$df = (3-1) (2-1) = 2$$

Table 6.44 Computation of X^2 (House location 1. Metros 2. Cities and 3. towns) – Refer Page No 147.

OF	EF	OF – EF	$(OF - EF)^2$	$(OF - EF)^2/EF$
47	94	-47	2209	23.50
79	93	-14	196	2.10
99	38	61	3721	97.92

$$\Sigma = 123.52$$

$$x^2 = 123.52$$

**Chi Square Test for Establishing Degree of Significance of
Relationship between Rankings of Defence Services by Student
Respondents and their Demographic Profile.**

Table No 6.532 Computation of χ^2 (Religion, 1. Hinduism including Sikhism, 2. Christianity and 3. Islam) – Refer Page No 148.

OF	EF	OF-EF	(OF-EF) ²	(OF-EF) ² /EF
47	142	-95	9025	63.55
79	07	72	5184	740.57
99	76	23	529	6.96
				$\Sigma=811.08$

$$\Sigma=811.08$$

$$\chi^2 = 811.08$$

Table 6.64 – Computation of χ^2 – Refer Page No 150.

(1. SC & ST, 2. OBC and 3. General)

OF	EF	OF – EF	(OF-EF) ²	(OF-EF) ² /EF
47	68	-21	441	6.48
79	16	63	3969	248.06
99	141	-42	1764	12.51
				$\Sigma= 267.05$

$$\chi^2 = 267.05$$

**Chi Square Test for Establishing Degree of Significance of
Relationship between Rankings of Defence Services by Student
Respondents and their Demographic Profile.**

**Table 6.74 Computation of χ^2 (Type of School 1. Private,
2. Government and 3. Others) – Refer Page No 152.**

OF	EF	OF – EF	(OF-EF) ²	(OF-EF) ² /EF
24	51	- 27	429	14.29
52	82	- 33	1089	12.81
74	14	+ 60	3600	257.14
				$\Sigma = 284.24$

$$\chi^2 = 284.24$$

**Table 6.832 Computation of χ^2 (No of Brothers - 1. Nil 2.One
3.Two or More) – Refer Page No 154.**

OF	EF	OF – EF	(OF-EF) ²	(OF-EF) ² /EF
24	62	- 38	1444	23.29
52	84	- 32	1024	12.11
74	04	70	4900	1225.00
				$\Sigma = 1260.48$

$$\chi^2 = 1260.48$$

**Chi Square Test for Establishing Degree of Significance of
Relationship between Rankings of Defence Services by Student
Respondents and their Demographic Profile.**

Table No. 6.933 Computation of x^2

(No. of Sisters -1. Nil, 2. One, 3. Two or More) – Refer Page No 155.

OF	EF	OF – EF	(OF-EF) ²	(OF-EF) ² /EF
47	117	70	4900	41.88
79	72	7	49	0.68
99	36	63	3969	110.25
				$\Sigma = 152.81$

$$X^2 = 152.81$$

**Table No. 6.1033 Computation of x^2 (Gender 1. Males and
2. Females)– Refer Page No 156.**

OF	EF	OF – EF	(OF-EF) ²	(OF-EF) ² /EF
105	144	-39	1521	10.56
120	81	39	1521	48.14
				$\Sigma = 58.70$

$$x^2 = 58.70$$

**Chi Square Test for Establishing Degree of Significance of
Relationship between Rankings of Defence Services by Student
Respondents and their Demographic Profile.**

Table No. 6.1133
Computation of χ^2 (Age Group 1. 15-20 and
2. 21-25) – Refer Page No 158.

OF	EF	OF – EF	(OF-EF) ²	(OF-EF) ² /EF
105	140	-35	1225	8.75
120	85	35	1225	14.41
				$\Sigma = 23.16$

$$\chi^2 = 23.16$$

Table 6.1232 Computation of χ^2 (Academic Performance 1. X 2. XII
and 3. Graduate class) – Refer Page No 160.

OF	EF	OF – EF	(OF-EF) ²	(OF-EF) ² /EF
47	132	-85	7225.0	54.73
79	102	-23	529	5.18
99	73	26	-676.0	9.26
				$\Sigma = 69.17$

$$\chi^2 = 69.17$$

**Chi Square Test for Establishing Degree of Significance of
Relationship between Rankings of Defence Services by Student
Respondents and their Demographic Profile.**

**Table No. 6.1331 (Educational Status of Father Matriculation,
Graduation and PG and above Computation of χ^2) – Refer
Page No 162.**

OF	EF	OF – EF	(OF-EF) ²	(OF-EF) ² /EF
47	42	5	25	0.595
79	108	-29	841	7.780
99	75	24	576	7.680
				$\Sigma = 16.055$

$$\chi^2 = 16.055$$

**Table No. 6.1322 Computation of χ^2 (Educational Status of
Mother- 1. Matriculation & less 2. Graduate and PG & Above)
– Refer Page No 162.**

OF	EF	OF – EF	(OF-EF) ²	(OF-EF) ² /EF
47	77	-30	900	11.68
79	125	-46	2116	16.92
99	23	76	5776	251.13
				$\Sigma = 279.73$

$$\chi^2 = 279.73$$

**Chi Square Test for Establishing Degree of Significance of
Relationship between Rankings of Defence Services by Student
Respondents and their Demographic Profile.**

Table No. 6.1433

**Computation of χ^2 (Family's Income 1. Upto 10,000/- 2. 10,000/- -
20,000/- and 3. 20,000/- & above) – Refer Page No 164.**

OF	EF	OF – EF	$(OF-EF)^2$	$(OF-EF)^2/EF$
47	118	-71	5041	42.72
79	87	-8	64	0.73
99	20	79	6241	312.05
				$\Sigma = 355.50$

$$\chi^2 = 355.50$$

**Table No. 6.1523 Computation of χ^2 (Father's Occupation- 1.
Defence Service & 2. Civil Service) – Refer Page No 166.**

OF	EF	OF – EF	$(OF-EF)^2$	$(OF-EF)^2/EF$
105	19	86	7396	389.26
120	206	-86	7396	35.90
				$\Sigma = 425.16$

$$\chi^2 = 425.16$$

**Chi Square Test for Establishing Degree of Significance of
Relationship between Rankings of Defence Services by Student
Respondents and their Demographic Profile.**

**Table No. 6.163 Computation of χ^2 (Mother's Occupation 1.
Housewives 2. Other Vocations) – Refer Page No 168.**

OF	EF	OF – EF	(OF-EF) ²	(OF-EF) ² /EF
105	78	27	729	9.34
120	147	27	729	4.95
				$\Sigma = 14.29$

$$\chi^2 = 14.29$$

**Table No. 6.1723 (Serving/Retired Relatives in the Armed
Forces**

1. Parents 2. Siblings and 3. Others) – Refer Page No 169.

OF	EF	OF – EF	(OF-EF) ²	(OF-EF) ² /EF
47	29	18	324	11.17
79	40	39	1521	38.02
99	156	-57	3249	20.82
				$\Sigma = 70.01$

$$\chi^2 = 70.01$$

**Chi Square Test for Establishing Degree of Significance of
Relationship between Rankings of Defence Services by Student
Respondents and their Demographic Profile.**

**Table No. 6.1823 Computation of x^2 (Branches of Relatives in
the Armed Forces - 1. Army , Navy & Air Force, 2. Para
Military Forces and 3. Defence Civilians) – Refer Page No 170.**

OF	EF	OF – EF	$(OF-EF)^2$	$(OF-EF)^2/EF$
47	54	7	49	0.90
79	10	69	476.0	47.60
99	07	92	8464.0	1209.14
				$\Sigma = 1257.64$

$$X^2 = 1257.64$$

**Table 6.1922 Computation of Chi Square (Designation of family
Members in the Armed Forces – 1. Officers 2. PBOR)– Refer Page
No 172.**

OF	EF	OF – EF	$(OF-EF)^2$	$(OF-EF)^2/EF$
105	15	90	8100	540.0
120	56	64	4096	73.14
				$\Sigma = 613.14$

**Chi Square Test for Establishing Degree of Significance of
Relationship between Rankings of Defence Services by Student
Respondents and their Demographic Profile.**

$$\chi^2 = 613.14$$

Table 6.2022

Computation of χ^2 (Type of Family – 1. Nuclear 2. Joint) – Refer

Page No 173.

OF	EF	OF – EF	(OF-EF) ²	(OF-EF) ² /EF
105	182	-77	5929	32.57
120	43	77	5929	137.88
				$\Sigma = 170.45$

$$\chi^2 = 170.45$$